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Drug & Cosmetic INDUSTRY

June 1944

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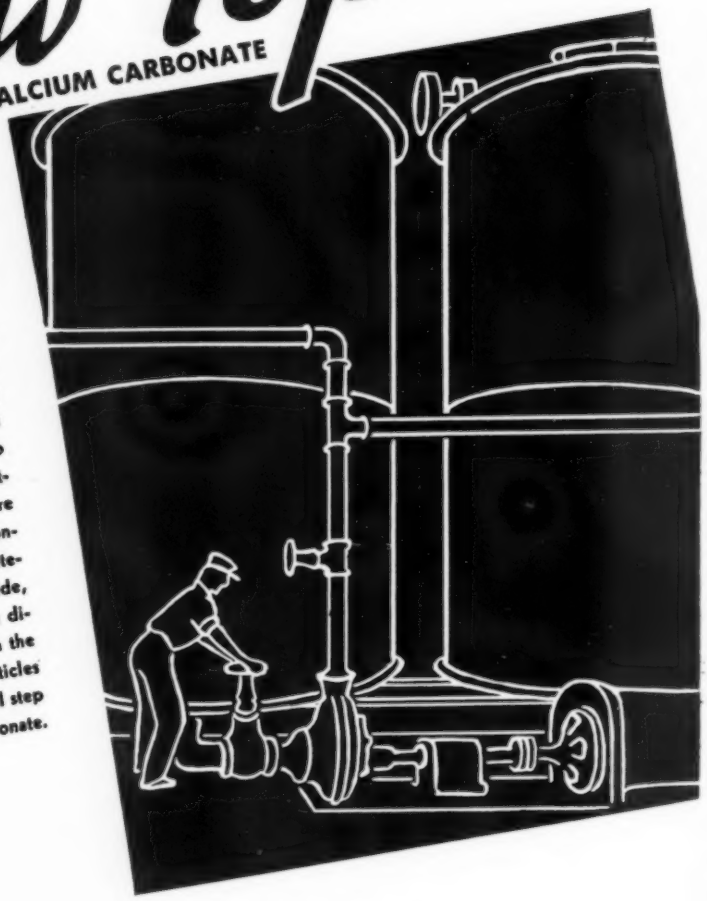
THESE ARE THE TANKS

where we slake the Lime which we burn to make

Snow Top

PRECIPITATED CALCIUM CARBONATE



Before the lime which has been drawn from the kiln can be converted into precipitated calcium carbonate it must pass through another preliminary chemical change. In the form of lime, or calcium oxide, it is impossible to bring about the rapid and controlled reaction with carbon dioxide which produces Snow Top Calcium Carbonate; but the lime reacts readily with water to become calcium hydroxide, or hydrated lime, in which form the desired combination can be brought about. To accomplish this the lime is placed in a compartment in one of these large tanks, or slakers, where it meets and combines with the water, under controlled conditions. The lumps of lime disintegrate into the fine particles of calcium hydroxide, all of which must be less than 0.0029 inch in diameter in order to go through the openings in the screen through which this mixture of solid particles and water is passed on its way toward the final step in its conversion into Snow Top Calcium Carbonate.

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Drug & Cosmetic INDUSTRY

JUNE 1944

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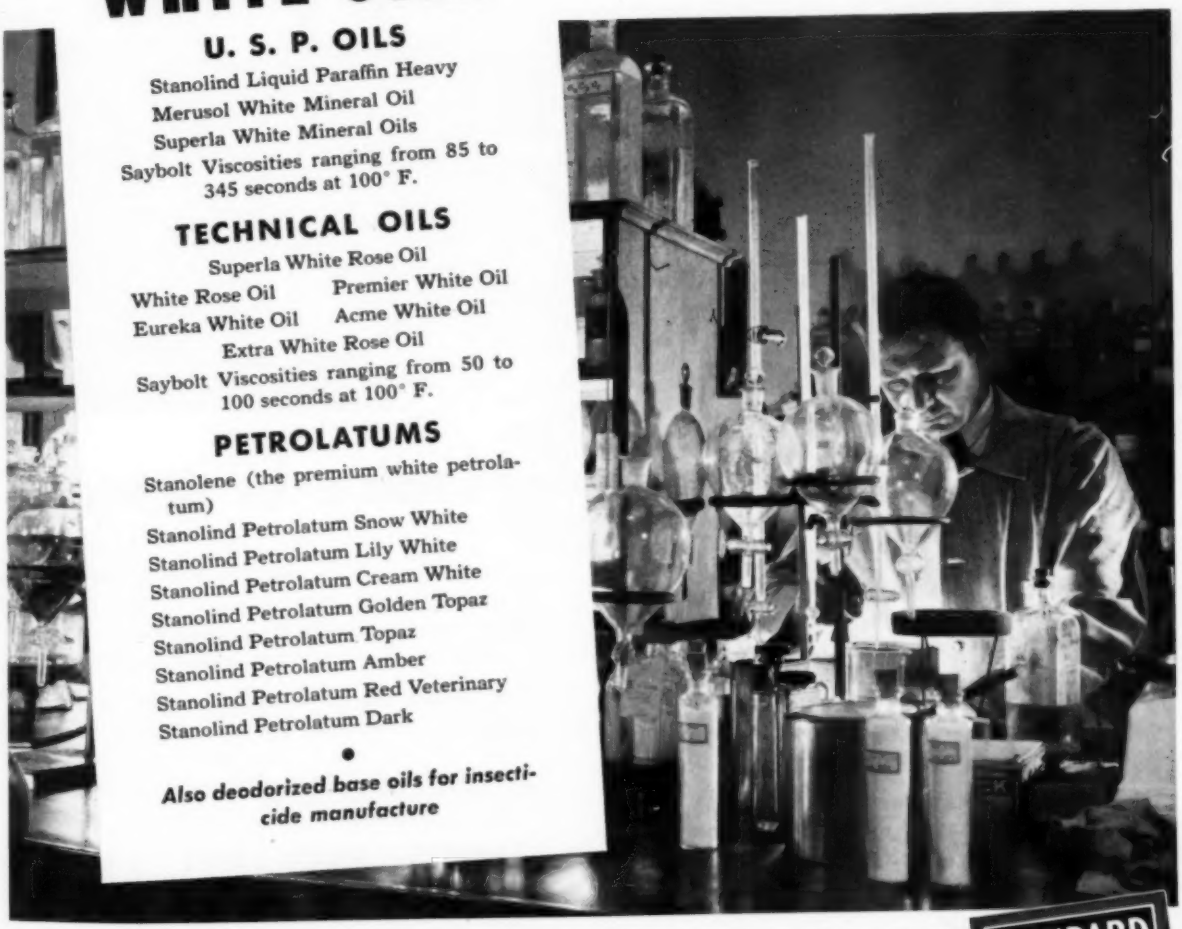

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INSIDE NEWS

JUNE PREPARED BY NATIONAL CAN CORPORATION, NEW YORK, N. Y. 1944

New Bonding Process Will Affect Many Industries

It looks like ordinary glue—but when two pieces of aluminum are bonded with it, 3000 lbs. pressure are required to tear them apart!

The name is "Cycleweld," and it's called "a new process for permanently bonding together, and to each other, metal, wood, plastics, ceramics, fibre board and rubber in any desired combination to form structures that are stronger, lighter and cheaper than those joined by conventional methods."

In War Production Today

The exact composition of Cycleweld cement, a thermosetting plastic, is censored today, owing to its wide usefulness in aircraft manufacture. In wing flaps, wood-metal fittings, stabilizers, it is saving time, eliminating rivets and increasing strength while it reduces weight.

In fastening metal wing flaps, for instance, it has saved 4 man-hours riveting time on P-40 fighters, and cut cost one-third. Only 300 rivets are necessary to hold wing flap supports, instead of 1200. The Cycleweld is applied with a spray gun; the assembly is then joined together in a heated press.

On one experimental wood-constructed airplane, Cyclewelding saved 1700 lbs., eliminating bolts and nuts from the most important beam fittings. In another case, where 5500 rivets were formerly used to assemble an aircraft part, the manufacturers now use only 30 rivets and Cycleweld the rest of the joining, at one-tenth the cost.

Cycleweld's resistance to vibration is another important factor in automotive and aircraft applications.

Wide Application Post-War

At the present time, Cycleweld has been adapted mainly to riveted or spot-welded construction designs. Even more far-reaching results are expected when it is used to join structures expressly designed for it. There are many possible ways to apply the necessary heat and pressure for the actual bonding.

Since Cycleweld can join together many kinds of building materials, its invention will permit greater lightness, strength and economy in the houses and furniture of the future. It is already being used to fasten corrugated steel within layers of plywood for prefabricated flooring.

Cycleweld's resistance to vibration will also permit new developments in automobile design, particularly where plastics are to be joined to metal, since it will be possible to fasten both of them to a cushioning strip of rubber. 654

Avoid Agitation

To insure a good flavor in Cheddar cheese, the milk to be used should be subjected to as little agitation as possible and all milk for cheese should be cooled. These are definite conclusions based upon the grading of experimental cheese made of first-quality milk under commercial conditions. Rancid and unclean flavors are developed rapidly by agitating milk. The vigorous agitation of uncooled milk, as in farm trucks on the way to the cheese station, activates the milk lipase, and it is the lipase activity which accounts for both the rancid flavor and the related but less definite defect classed as "unclean flavor". 655

"C" From Beet Sugar

Galacturonic acid, derived from sugar beet pulp, has been found a suitable starting material for the production of vitamin C. 656

"Hormoned" Tomatoes

By using the aerosol method (gas containing insecticide under great pressure in small cylinder), hormones sprayed on tomato blossoms obtained nearly a perfect set of fruit, grew faster and ripened faster, were larger and nearly seedless, both indoors and out. 657

Disinfectant Salts

A comparatively new salts development in the disinfectant field, represents a decided change from older and more familiar types of disinfectants. They are exceptionally stable and can be stored indefinitely; characterized by exceptionally high bactericidal activity, they are germicidally active through a wide pH range. Other advantages which indicate a probable expanded use in the post-war period in the manufacture of disinfectants are relatively low toxicity and absence of appreciable odor. This last characteristic in particular offers quite a contrast to older types of disinfectants, with their characteristic phenolic, pine or chlorine odor. 658

Transmuted Wood

Soft wood into hard wood by a new chemical process has been announced by a leading American chemical company. This chemical magic wand, made of commercially available and inexpensive chemicals, provides a result that is no longer natural wood, but a new material that may be termed "transmuted" wood. 659

Fish Preservative

By the use of "hyperol" as a bactericide, the preservation of fish during shipment can be improved, reports from Hungary indicate. Hyperol is a colorless and odorless combination of urea and hydrogen peroxide. 660

Emulsion Stability

Because the number and type of emulsifiers have increased, there has developed the need for a test which will give a fairly rapid quantitative measure of the stability of emulsions stabilized with different agents. One such measure can be obtained from the resistance of the emulsion to breaking under mechanical stress. And centrifuging is proposed as a means of obtaining a measurable destructive force. 661

Acylated Amines

Amines, either of the aromatic or aliphatic type, can be conveniently acylated with very good yields by reacting their hydrochlorides with an amide, it is reported in a foreign publication. In general, the amine hydrochloride is mixed with a slight excess of the amide and the mixture melted. After several minutes ammonium chloride separates and the reaction is complete. 662

Anthracene Paste

Purification by heating the mass, allowing it to cool carefully, and then pressing to remove the content of entrained oil is described in a recent British patent. The process can be applied to pastes from which the oil could not be removed by direct pressing, and in the modified method, hydrocarbon impurities accompany the expressed oil in such portion as to produce pastes exceeding 40% in anthracene content. 663

Synthesized Santonin

Santonin has been successfully synthesized in India, according to a recent dispatch from that country. An unusual feature of the synthesis was declared to be the formation of santonin in the optically active form. Synthetic materials are usually obtained in the racemic form. 664

Melamine

Manufacture from cyanamide or dicyandiamide by an improved method is claimed in a recent British patent. In the process described, a solution of cyanamide or dicyandiamide is heated in an autoclave in a solvent comprising liquid ammonia, with or without the addition of anhydrous methanol or other diluents to reduce the autoclave pressure, while agitating the charge. 665

Varnish

Varnish film formation without the use of volatile solvents was recently described by a large American company. The films are based on solutions of an unsaturated poly-

merisable resin in a nonreactive fluid solvent. Under the influence of a catalyst at slightly elevated temperatures, the varnishes are said to harden into tough products. 666

Petroleum Jelly

This has been found effective in combatting the swelling and gangrene caused by prolonged exposure to salt water often suffered by torpedoing victims. Canadian medical research has found an impregnated stocking an easy method of application of the treatment. 667

Quahog Fishing

The war promises to bring out another major New England ocean industry, the fishing for black or ocean quahogs. Quahogs, a hard-shelled variety of clam, have been less popular than the familiar soft shells . . . and being inhabitants of deep water, they're harder to catch. However, scientists of the Fish and Wild Life Service are establishing a laboratory in New England to encourage quahog fishing.

Last year's production of ocean quahogs *(Venus mercenaria)* totalled 50,000 bushels, providing 435,000 pounds of meat for clam chowder. The Interior Department of the government presents these earnings figures: Average price for a bushel of quahogs $1, average catch in one day for a boat from 40 to 50 feet long, 100 to 150 bushels . . . worth going after! Quahogs are nutritious, tasty and are said to be plentiful for commercial catches off the New England coast. 668

Sulfathiazole in Glycerine

Further evidence that glycerine is a superior vehicle for incorporating sulfonamides is presented in a recent report from the Canadian Army Medical Corps. The mixture, prepared in a clean mortar with a clean pestle, results in a smooth cream said to have none of the disadvantages of other preparations. It is easily made, chemically stable and stands temperature extremes well. It has a wide and varied field of usefulness and is definitely anti-bacterial. 669

Penicillin Dressing

A new type of penicillin dressing with a glycerine content has been reported for topical application in local treatment of wounds. Clinical application of the penicillium-inoculated dressings on a series of patients who had not been benefitted by other forms of therapy showed the efficacy of the procedure. 670

Pellicles

Regenerated cellulosic gel bands or pellicles suitable for bottle caps, seals and the like are impregnated with admixed water, a softener, and isopropyl alcohol, serving to preclude attack by molds and bacteria. 671

Technical Topics

EMULSIFIER — A light amber liquid, declared to form controllable milky emulsions in water, and to be miscible with alcohol, glycerine, glycol, hydrocarbons, solvents and oils, is being offered as an emulsifying agent for cosmetic, food and other commercial products. 672

TUBERCULOSIS CURE—A new chemotherapeutic agent has produced encouraging results in the treatment of tuberculosis. Though no conclusions have as yet been expressed as to the curative power in human cases of tuberculosis, outstandingly positive curative effects have been recorded on the disease in guinea pigs. Its relative lack of toxicity to humans and animals alike is also declared to be very promising. 673

BRONCHODILATORS—Indanamine compounds have shown promise in the treatment of bronchial asthma, a representative of a large American pharmaceutical manufacturer reported recently. The indanamines were found effective bronchodilators without causing any appreciable undesirable rise in blood pressure. 674

SOIL FUMIGANTS — Dichloropropylene and dichloropropane have been found to have desirable soil fumigating properties, and to be highly effective in the control of the common root-rot nematods. Hawaiian pineapple planters have already used the materials on a large scale with satisfactory results. 675

CARBON BISULFIDE — Manufacture by an improved method is claimed in a recent British patent. In the process described, molten sulphur is passed in small fixed doses at regular frequent intervals into a retort containing heated charcoal. As the reaction proceeds it is advised that the molten sulphur additions be gradually decreased in quantity. 676

TRIETHANOLAMINE — Turkey red oil, and alkaline soaps of fatty acids materially reduce, and in cases overcome loss of luminescence commonly encountered when pigments of the zinc-cadmium sulphide class are employed in paints or enamels for exterior exposure, it is declared in a recent British patent. Not more than five percent of the wetting agent should be added to the paint, the claims state. 677

ELECTROPOLISHING — The value of glycerine in electropolishing solution is again brought to the fore in a recent U. S. Patent. 678

FANWEED — This grows abundantly in the north central states and southwest Canada, can be processed for a seed oil which is a good substitute for rapeseed oil, 90% of which came from Japan, for paints and varnishes; and also edible shortening or salad oil. 679

CRANBERRY — Derivatives include ursolic acid, a white odorless powder used in compounding cold creams; cranberry meal, a filler for plastics; cranberry seed oil used in shampoos. 680

ONION OIL — Volatile oil of onion and garlic have been found by Russian scientists to contain a bacteria-killing substance. Onion paste has been used to heal wounds and guard against infection. 681

SUMMER COMFORT? — A chemical used in liquid form or cosmetic creams as an insect repellent. One application gives six hours' protection. 682

ROT CONTROL — Penicillin has been found of possible value in horticulture. Studies at a western university show that the bacteria responsible for the destructive rot of the giant cactus of the southwest could be controlled. 683

INK FOR GLASS — A new, permanent ink that adheres to glass and ceramics and is non-corrosive, non-inflammable, has been developed. Dry ink is not affected by any common solvents; may be kept in a can or bottle and is easily applied. 684

Every effort will be made to furnish additional information on these articles. Where such information is not obtainable, we will refer inquiries to the original source of the article. Write to National Can Corporation, 110 East 42nd Street, New York City. Please mention the number at end of article—also name of the magazine you saw it in.

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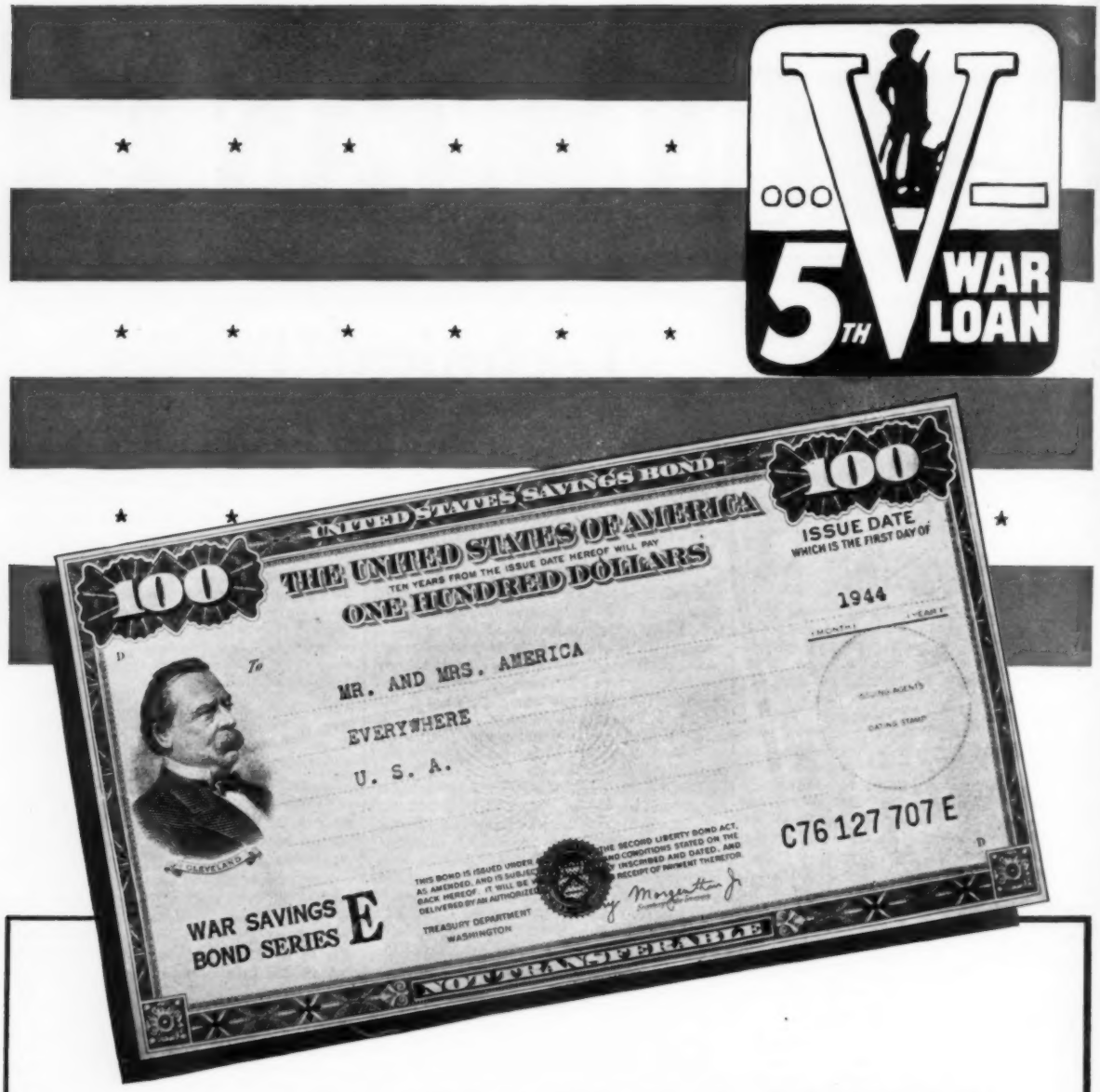

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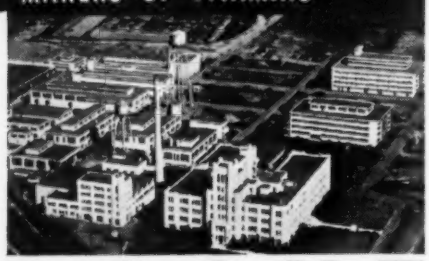

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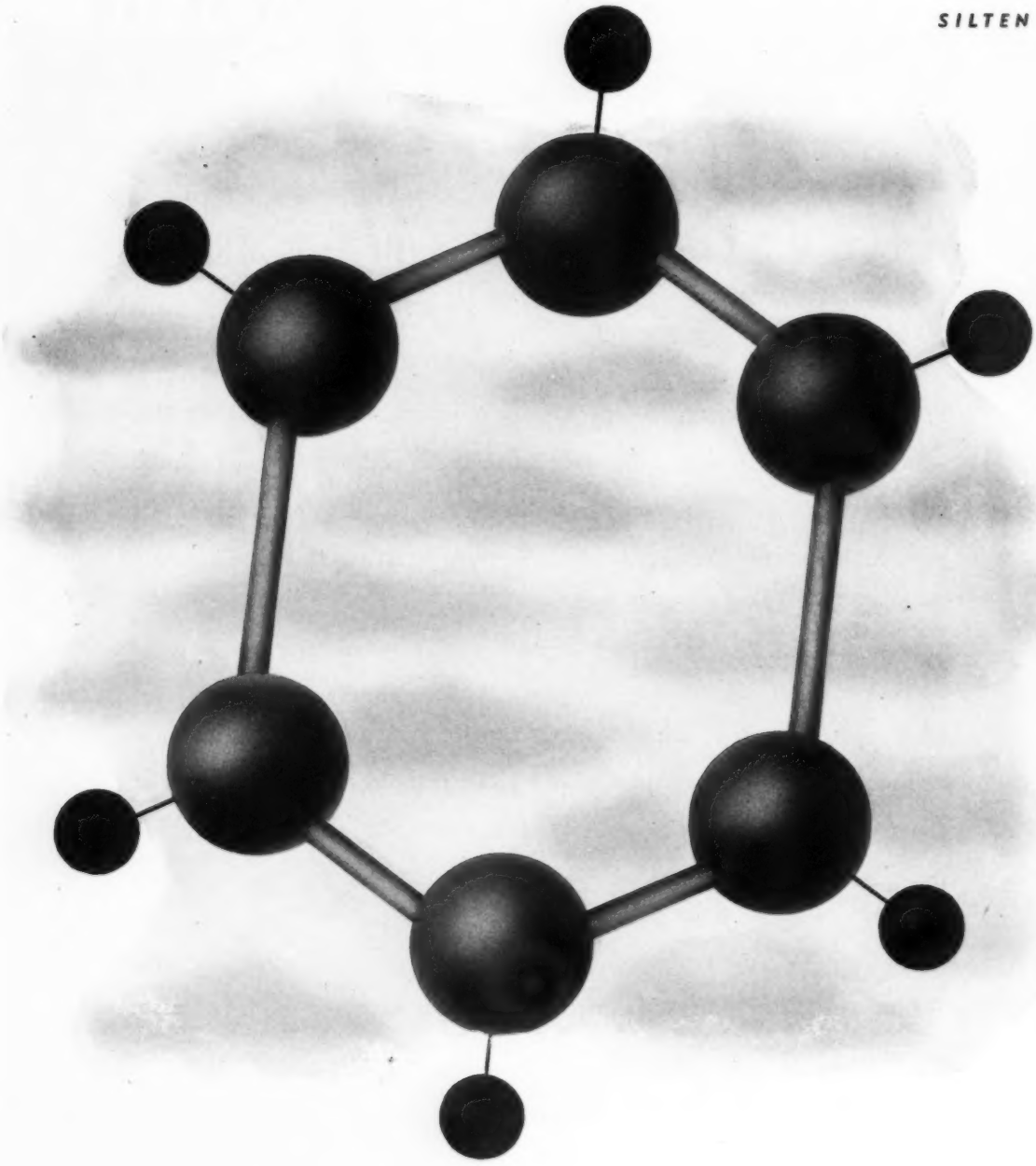

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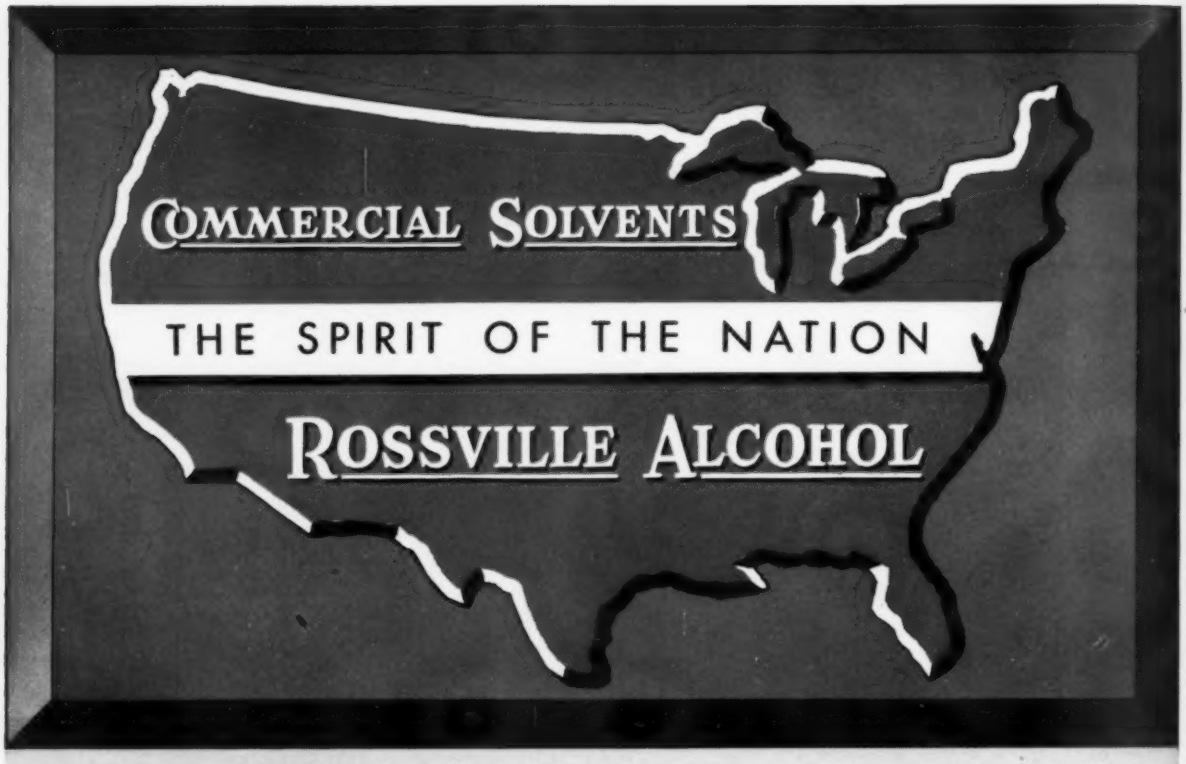

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PENICILLIN
MERCK

A RECORD OF PERFORMANCE

THOROUGHGOING experience and established leadership in organic research, development, and production have been the determining factors in the rapid achievement of large-scale Penicillin production by Merck & Co., Inc.

Intensive research on Penicillin, begun in the autumn of 1940, established a sound basis for the successful development of mass production. By applying chemical engineering principles to the manufacture of this intrinsically unstable and difficultly produced substance, Merck & Co., Inc. succeeded in devising and perfecting a practical method of production, based on the mass-fermentation principle.

The following chronologic review tabulates the more important advances leading to the present volume of Penicillin production, including some of the contributions that we have been privileged to make:

1929—Penicillin discovered by Fleming in England.

1932—First report by British investigators confirming original work on Penicillin.

1940—First isolation of solid Penicillin by Oxford investigators.

1940—Merck research on antibiotics concentrated on Penicillin.

1941—First report of Penicillin's clinical value.

1941—Prof. H. W. Florey and Dr. N. G. Heatley, of the Oxford group, visited the United States to confer with interested Government officials and manufacturers, with the objective of establishing Penicillin production in America.

1941—Dr. Heatley, who participated in the first production work in England, remained at the Merck Research Laboratories to collaborate with Merck chemists in developing test and production procedures.

1941—Merck brought about a reciprocal arrangement between British and American investigators to spur production in cooperation with the United States and British governments.

1942—Merck supplied Penicillin for first case of bacteriemia successfully treated with Penicillin in America.

1942—Merck Penicillin was rushed under police escort to Boston for treatment of the Cocoanut Grove fire casualties.

1943—Merck sent supplies of Penicillin to England by air transport for urgent therapeutic use by the United States Army Medical Corps.

1943—Large-scale production of Penicillin was established by Merck to meet Government requirements.

1944—Merck sends ever-increasing supplies of Penicillin to our Armed Forces.

Merck & Co., Inc. will continue to surpass present production records, with the urgent objective of supplying adequate quantities of Penicillin for civilian use, as soon as the essential requirements of our Armed Forces have been fulfilled.

MERCK & CO., Inc. *Manufacturing Chemists* RAHWAY, N. J.

In Canada: Merck & Co., Ltd., Montreal and Toronto

An illustrated booklet describing the clinical uses of Penicillin Merck is available on request.

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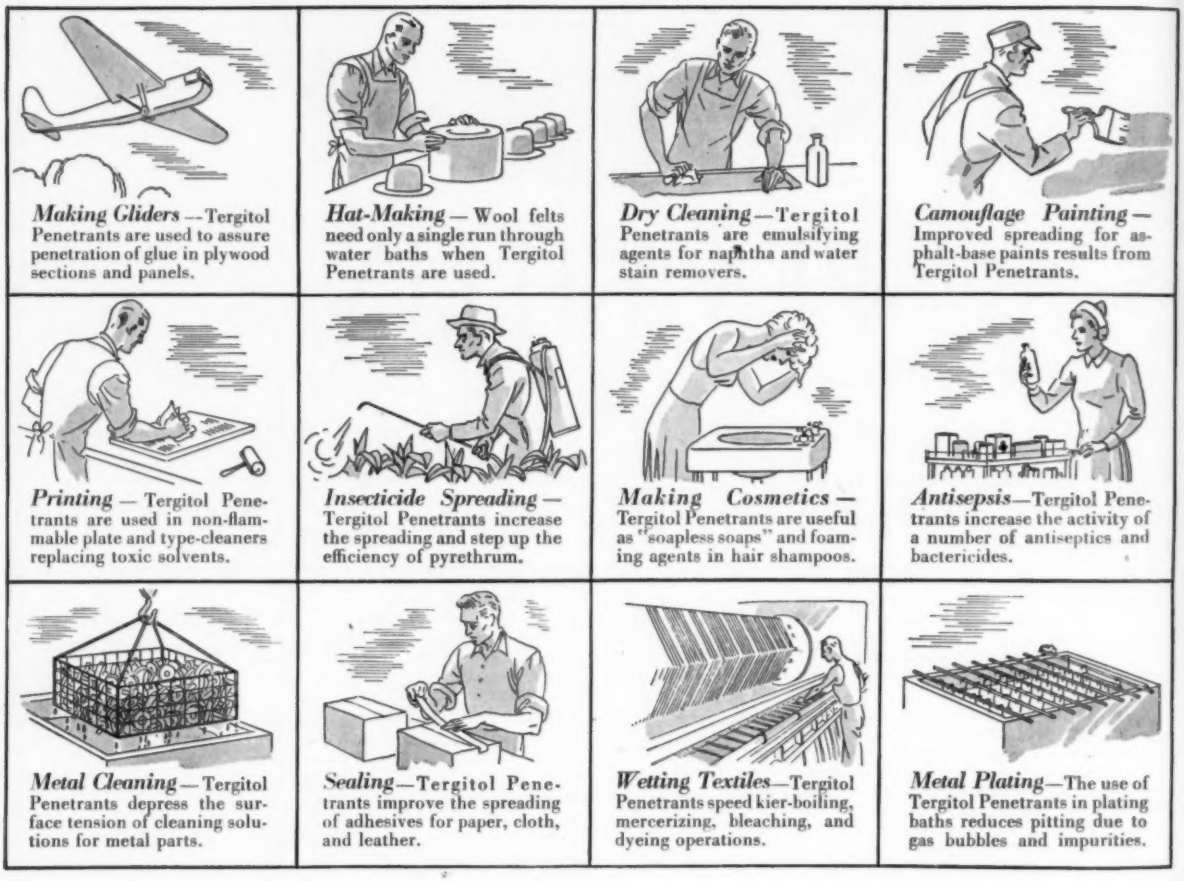
—*Have You Tried Them in Your Processes?*



Making Gliders — Tergitol Penetrants are used to assure penetration of glue in plywood sections and panels.

Hat-Making — Wool felts need only a single run through water baths when Tergitol Penetrants are used.

Dry Cleaning — Tergitol Penetrants are emulsifying agents for naphtha and water stain removers.

Camouflage Painting — Improved spreading for asphalt-base paints results from Tergitol Penetrants.

Printing — Tergitol Penetrants are used in non-flammable plate and type-cleaners replacing toxic solvents.

Insecticide Spreading — Tergitol Penetrants increase the spreading and step up the efficiency of pyrethrum.

Making Cosmetics — Tergitol Penetrants are useful as "soapless soaps" and foaming agents in hair shampoos.

Antisepsis — Tergitol Penetrants increase the activity of a number of antiseptics and bactericides.

Metal Cleaning — Tergitol Penetrants depress the surface tension of cleaning solutions for metal parts.

Sealing — Tergitol Penetrants improve the spreading of adhesives for paper, cloth, and leather.

Wetting Textiles — Tergitol Penetrants speed kier-boiling, mercerizing, bleaching, and dyeing operations.

Metal Plating — The use of Tergitol Penetrants in plating baths reduces pitting due to gas bubbles and impurities.

● Tergitol Penetrants are powerful wetting, penetrating, and emulsifying agents even at high dilutions. They are stable in the presence of acids, alkalies, salts, and hard water. These sulphates of higher synthetic alcohols are made entirely from domestic raw materials. Our technical representative can help you pick the particular Tergitol Penetrant best suited for your process.

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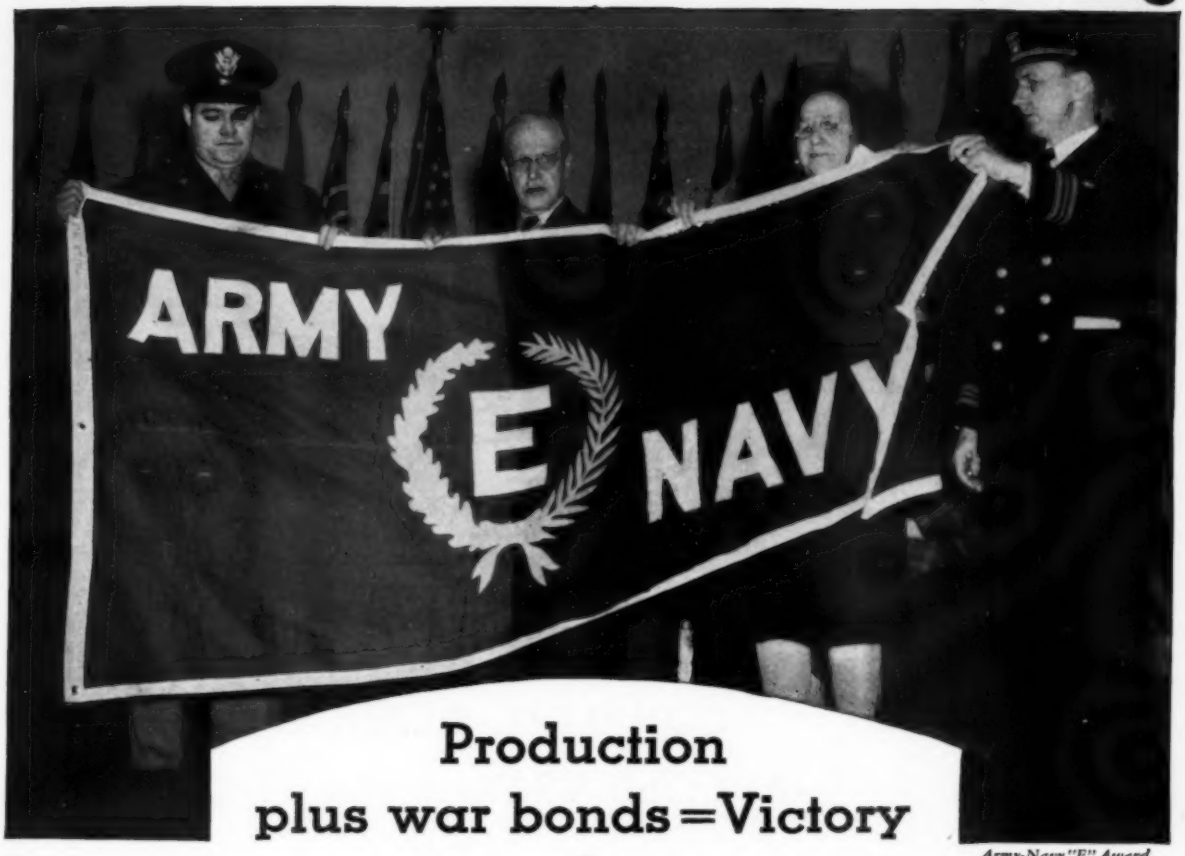

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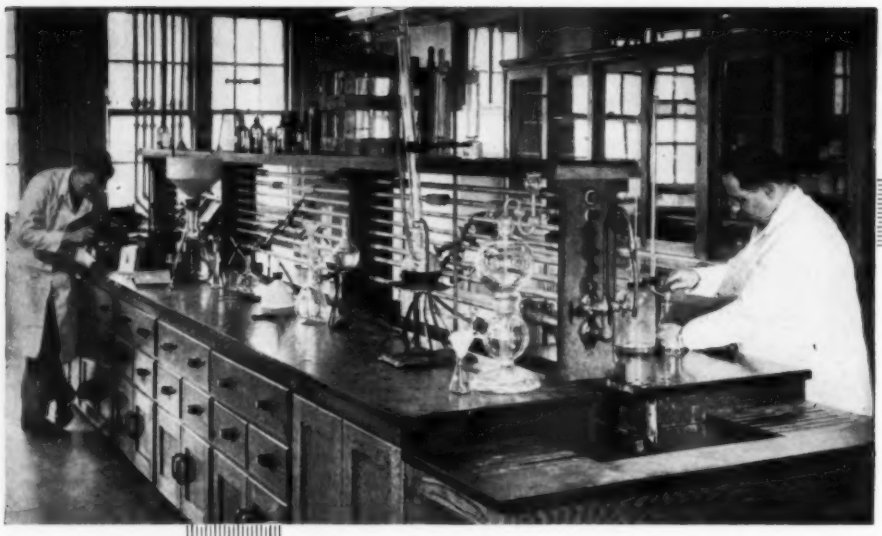

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No one ever called Mr, Jones handsome, but women by the hundreds of thousands have lost their heads over his "*line*," that is, his line of beauty preparations.

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Apparent, as manufacturers gird for the inevitable scramble for post-war markets, are *new, sales-stimulating* uses of Essential Oils. To producers who perceive, in this medium, new sales horizons for products of today . . . *and tomorrow*, MM&R laboratory technicians offer their cooperation.

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A few of the end-uses of successful products containing SONNEBORN White Oils or Petrolatums are illustrated. There are many others.

The broad research facilities of the SONNEBORN laboratories, backed by 64 years of refining experience, are available for aid in current production problems and in the development of new pharmaceuticals for postwar markets.

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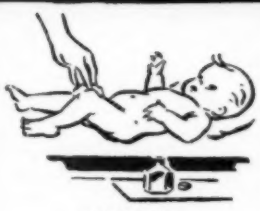

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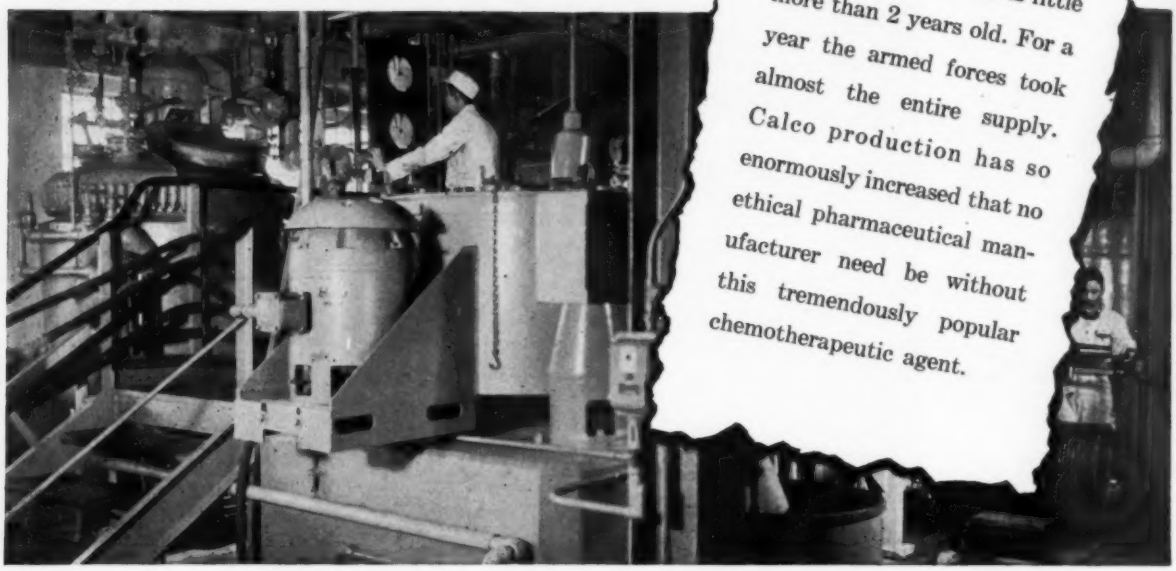

SULFADIAZINE is little more than 2 years old. For a year the armed forces took almost the entire supply. Calco production has so enormously increased that no ethical pharmaceutical manufacturer need be without this tremendously popular chemotherapeutic agent.

Scene in Calco Laboratories showing one of the steps in Sulfadiazine manufacture. Calco is world's largest producer of Sulfa Drugs.

Daily newspapers, magazines, trade papers and ethical publications continually tell of the rising tide of deserved publicity which is now increasing the popularity . . . the nation-wide demand . . . for SULFADIAZINE. Doesn't this mounting popularity indicate the wisdom of making your SULFADIAZINE requirements known to Calco right away?

You probably know these two outstanding facts about SULFADIAZINE: (1) That it is generally accepted as the "Drug of Choice" in the treatment of pneumonia, pneumococcic infections, hemolytic streptococcus and staphylococcic and meningococcic infections. (2) That already it has been used in the treatment of upwards of 6,000,000 cases in the armed forces.

Consider, then, the big potential in increased sales SULFADIAZINE offers the ethical Drug Manufacturer! Now that CALCO is able to supply you this famous Sulfa Drug, we suggest you act upon this opportunity at once.

New Products

Choline Chloride
Choline Dihydrogen Citrate

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Ask, Also, About These Other Available CALCO Products

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Sulfathiazole U.S.P.
(and Sodium Monohydrate)
Mandelic Acid U.S.P.
Methylene Blue U.S.P.
(Powder-Crystals)
Calcium Mandelate U.S.P.
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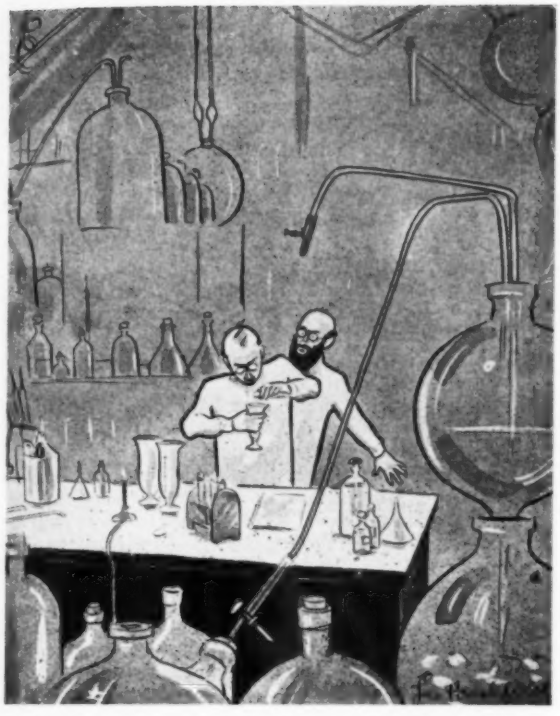


"This hormone cream must be impure. It's getting hot!"

KEEPING POSTED

Synthetic Quinine

THE synthesis of quinine, accomplished by scientists working in the interests of the Polaroid Company, might not mean much for some time to come and might not mean much to the Polaroid Company at any time. In the first place, synthetic quinine at present is only a laboratory product that has been produced only in minute quantities and it still must be learned whether or not production is practicable in view of the fact that it is the result of many complicated reactions.

The Polaroid Company had a greater interest in synthetic production of quinine than anyone else for the reason that a quinine salt has been a necessary component of Polaroid glass. Therefore, if this product was to be developed in a big way, the company must be able to obtain unlimited quantities of quinine at a low cost, and synthesis is always the answer to such a problem. However, before the synthesis was accomplished, the company was denied use of quinine in April 1942, by WPB due to the need for all stocks of quinine for treatment of malaria. The company appealed for permission to use quinine for about a month in limited quantities while a substitute was sought. The appeal was granted for the fullfillment of military orders. However, a substitute for quinine was found and the company no longer needed quinine for its own purposes. However, Polaroid decided, because of the medical need, to proceed with the effort that has now succeeded.

Drugs from the Meat Packers

DAVE Klein of Wilson Laboratories dislikes the term "by-products" applied to the glandular products obtained from the meat packing industry and used medicinally. He thinks that "by-product" connotes something of low value, of minor importance, while these products have values far above the price of the choicest beefsteak—raw pituitaries $1.50 to $3.50 per pound, according to species, and beef parathyroids $5.00 to $10.00 per pound according to quality.

Dave points out that at least 30,000,000 pounds of liver are now used medicinally resulting in carload values of 14½ cents per pound for pork liver and 30 cents for beef liver, which is a far cry, he says, from the days when liver was worth about ½ cent per pound and the butcher would throw in a piece for the cat for free. He estimates the annual consumer dollar sales value of products derived from packing house materials of the type used medicinally at $50,000,000. He says that during the past twenty years the value of the raw pancreas —for the production of insulin—from U. S. inspected abattoirs was $15,000,000 greater than it would have been had insulin not been discovered. Tons of testes were formerly used to produce the male sex hormone, while now the synthesis of the male sex hormone starts with another packing material, cholesterol, from which is also made the female hormone, progesterone.

FDA Ideas on Tonics

THE Food and Drug Administration recently stated its ideas as to what type of products would be considered tonics. According to FDA: "While iron salts may be sold as iron tonics, and strychnine dosages less than 1/20 grain daily may be classed as a stimulant tonic, we question the advisability of recommending arsenic in any proportion for indiscriminate use for prolonged use. If strychnine in small doses were combined with an effective dose of ferrous sulfate (5 grains three or four times daily), we would have no objection to the following warning because of the strychnine content: 'Warning: Do not take more than the dosage recommended, as larger or more frequent doses may be dangerous and may cause serious injury.'"

The objection to arsenic is because it is a cumulative drug and FDA officials feel that if it is taken continuously over a long period of time it may cause arsenic poisoning. Since it is no longer possible to obtain quinine for use of tonics, iron and strychnine are the only available tonic ingredients. Small doses of strychnine are recommended for obvious reasons, one of which is that the strychnine might not be completely soluble in the tonic with the result that if the product is not completely shaken each time a dose is taken, the past part in the bottle might contain a rather heavy dose of strychnine.

Willard Dow on Freedom

DR. WILLARD H. Dow, in his address on "The Meaning of Freedom," delivered on the occasion of his receiving the Gold Medal Award of the Institute of Chemists, forsees under a continuance in peace of the wartime controls "exactly the same sort of freedom from want and fear that a lifer enjoys in his cell. "With regard to the control of the sciences—which has been proposed quite often—Dr. Dow points out that although his company is producing bromine from sea water, it was conclusively demonstrated three times that it could not be done. Dr. Dow admits that he decided some years ago that, although the future of magnesium was unlimited, it would always be a specialty metal while at present prices it is by volume the cheapest of all metals. From which he concludes: "We have learned that if a research laboratory is to produce results, the men must be allowed the freedom to be a bit crazy. If we were to control closely, we would miss the great idea that is found only by those with the courage to be crazy."

An Enthusiastic Salesman

A SALESMAN who believes in what he is selling is a real asset to any manufacturer. And real enthusiastic salesmen not only try to get everyone they know to use their products, but they use them themselves. Unfortunately a salesman for a hair dye concern who did just this came to grief. For the hair dye was so effective in making him look young that he was recognized from a picture taken twenty-five years ago when he was nineteen years old. The nineteen year old picture was the one used by the FBI for this man who had been wanted all those years.

Patents and the Government

ONE of the most potent arguments against our patent system over a long period has been that use of a patent is not necessary in this country as it is in some others. This has meant that large corporations could buy up patents upon which serious competitive companies could be built and then do nothing with the patents thus depriving the public of the progress for the development of which the patent system was originally devised. Now, however, we find our Government indulging in just these same sort of tactics in the case of television. Because of the difficulties on the part of assigning radio channels, the Federal Communications Commission is agreeing with some potential developers of television that television should be held back from the public until it is further developed. This step is being taken despite the fact that the potential employment, indirectly as well as directly, of perhaps two million people is involved.

But the main point is just what right has the Government to take steps such as these? Will it start from this point and seek to control scientific advances in all fields including drugs and cosmetics?

A Soldier Fan

RECENTLY, we received a letter from a soldier in Uncle Sam's Army which impressed us deeply. Therefore we are passing the letter on to our readers because we are sure they will also be interested in it. The letter follows:

I have been a reader of your magazine for the past seven years. Since my induction nine months ago I haven't looked at DRUG AND COSMETIC INDUSTRY and I must confess I am quite lonesome for it.

I am aware that soldiering doesn't require a knowledge of pharmaceutical chemistry but I feel that I should make some attempt to keep abreast of the chemical world. Therefore, I was wondering if you might know of some subscriber that doesn't file his magazines who might be willing to forward them to me after he finishes reading them. Many thanks for your kind cooperation.

We have written to Private Stewart telling him that we are publishing the letter since we are certain that one or more of our readers will be willing to help him out. If anyone wishing to send him his copy to Private Stewart will drop us a line, we will forward his address. In the meanwhile we are keeping him supplied.

More on Penicillin

IT SEEMS that not a month goes by that we do not have some interesting developments to report in penicillin. This month records a still lower price of $2.20 per 100,000 units. The previous low price was $2.85, while the original price was $20.00. Another interesting development is that some manufacturers may soon be permitted to sell penicillin with a nine month dating. Originally only a three month dating was permitted, and later this was increased to six months. Now the drug is being stabilized to the point at which the nine month dating will be allowed. Meanwhile stockpiles of the drug are being built up to the point at which the stockpiles of several manufacturers at the end of May probably exceeded 25 billion units. It is said that the Armed Forces have been anxious to build up stockpiles at points where they can be easily reached for use in the invasion. For this reason distribution to civilians has been rather light. In addition to the desire to build up stockpiles at the expense of civilian distribution, it is taking time for hospitals to set up bookkeeping facilities for distributing the drug to doctors, and further, distribution will not be large until the medical profession acquires a broader experience in handling the drug.

Mercury in Cosmetics

THE Food and Drug Administration has notified cosmetic manufacturers that they should refrain from the use of phenylmercuric borate or benzoate in cosmetics unless very definite evidence is produced that none of the mercury is absorbed through the skin and that no local skin irritation will result.

Lactose in the USP

BECAUSE of the limited quantity of lactose now available due to the enormous demand for this material for the production of penicillin, the USP Revision Committee has revised the monograph for pancreatin permitting the use of sucrose in place of lactose as a diluent.

Proprietary Association on Advertising

THE Proprietary Association, at its recent meeting, adopted new stipulations on advertising practices of its members. We think that a reading of these stipulations should properly impress anyone with idea that proprietary medicine manufacturers have moved forward a very long way in recent years. The new stipulations are:

1. When advertising copy for proprietary medicines contains either the term "guaranty" or an offer to refund money paid by the purchaser, the impression should not be conveyed that the product is guaranteed as a cure or as an adequate treatment for the conditions mentioned unless such is the fact.
2. Advertising copy for proprietary medicines should contain no statement which * * * can be calculated to create fear or apprehension on the part of the reader or listener that he or she is suffering, or may without treatment suffer, from any serious ailment.
3. Advertising copy for proprietary medicines should contain no statements which may be construed as holding the product out for the prevention, cure or relief of serious diseases which require treatment by a physician.
4. Advertising copy for proprietary medicines should contain no reference to doctors, hospitals or nurses, whether American or foreign, unless such representations can be substantiated by independent evidence which can be produced if the manufacturer or advertiser is called upon to do so.
5. Advertising for proprietary medicines should omit prizes, competitions or other similar devices calculated to stimulate unnecessarily the purchase and use of medicine.

Zande Name Legal Abroad

GEORGE W. Luft Company sued Zande Cosmetic Company claiming that the name "Zande" infringed the name "Tangee" not only in this country but in foreign countries. The Circuit Court of Appeals has sustained the District Court in ruling that the name "Tangee" is infringed so far as this country is concerned, but not so far as foreign countries are concerned. Zande was able to register the name "Zande" in Brazil and six other countries over the opposition of Luft, and the name has been registered in three other countries without opposition. The ruling means that where the right to a particular mark has been established in a foreign country even if such mark cannot be lawfully used in the United States, the courts will not enjoin such foreign use even where the respective parties are domiciled in the States.

Sulfa Drug Production Cut

FROM figures made available late last month it would appear that production of sulfa drugs has been cut back due to plentiful supplies. Figures given for sulfa drug production for January, February, and March, in pounds 1944 are respectively, 653,798; 663,816; and 630,775; or a total for the three months of 1,948,389. If this rate of production is continued throughout this year, total production in 1944 will be 7,793,556 pounds, against slightly under 10,000,000 pounds produced in 1943, —and 2,000,000 pounds of sulfa drugs is no small amount for consumption in this country. Just think this one item over from the point of view of post-war surpluses.

O'Connor Heads National Vitamin Foundation

EVIDENTLY realizing that the time has come to take steps to protect the vitamin industry against the attacks that are being made upon it, leading manufacturers of vitamins and vitamin preparations met May 23 at the Waldorf in New York in a preliminary meeting for the formation of a National Vitamin Foundation. With vitamin sales soaring to new high levels and being attacked on all sides as replacing the tonics of old, and of being recommended and used for relief of all the symptoms that beset mankind, the proposed Foundation will have the following aims and purposes: To make grants for research in the vitamin or related fields, the dissemination of information to the vitamin trade, medical profession, and public with respect to the quality, purpose, and uses of vitamins, adoption of terminology and standards of publicity practices in connection with the sale of vitamins, and to confer and consult with medical societies, medical schools, health organizations, public health agencies, and governmental agencies with respect to vitamins and the vitamin industry.

The details of organization are being worked out by a committee headed by Basil O'Connor, New York attorney and president of the National Foundation for Infantile Paralysis. Serving on the committee are: C. S. Beardsley of Miles Laboratories, William H. Berg of Winthrop, Elmer H. Bobst of Hoffmann-LaRoche, Charles L. Bowman of Standard Brands, O. J. Brownell of Lever Brothers, S. DeWitt Clough of Abbott Laboratories, James J. Kerrigan of Merck, Carleton H. Palmer of Squibb, Earl S. Retter of Lilly, and Gerald L. Smith of Gelatin Products.

The preliminary meeting was held May 23 at the Waldorf in New York, and in addition to the committee members, the following were present: E. L. Shattuck of Abbott, E. B. Nicolait of Anheuser-Busch, Charles F. Kieser and Harry McNeilly of Borden, Murray Breese, Lee H. Bristol and R. E. Spline of Bristol-Myers, Frank Dowe of Distillation Products, J. M. Brooks of Harris Laboratories, N. F. Peterson and E. W. Bobst of Hoffmann-LaRoche, C. J. Paul Folsom and Dr. T. Jukes of Lederle, Robert Webb-Peploe of Lever Brothers, James C. Chilcott of Maltine, L. M. Van Riper of McKesson & Robbins, R. H. Wilson of Mead Johnson, C. M. Anderson of Merck, G. D. Davis and Henry A. Smith of National Oil Products, John J. Powers and John L. Smith of Chas. Pfizer, Gerald F. Rorer of William H. Rorer, S. Barksdale Penick Jr., A. T. Rickard of Sharp & Dohme, John J. Toohy of Squibb, William H. Hosler of Strong Cobb, Thomas E. Brittingham Jr. of Wisconsin Alumni Foundation, Willis A. Diekema of Depree, Dr. E. C. Merrill of United Drug, H. Boris Burns and Dr. L. Freedman of U. S. Vitamin, Edward D. McDaniel of Vitamins Plus, John Garizio of William R. Warner, Dr. William Neary of White Laboratories, Dr. J. Mark Hiebert and P. Val Kolb of Winthrop.

That Pharmacist Shortage

THE crisis that lies ahead due to the shortage of pharmacists was recently referred to by John Dargavel, executive secretary of the N. A. R. D., who points out that in ten years the number of registered pharmacists in the United States has dropped from 100,000 to 82,000 and the profession is losing more than 2,000 annually. Previous to Pearl Harbor, pharmacy graduates did not furnish more than 50 per cent of the demand for replacements, and it is estimated that this year only 500 graduates will be added to the dwindling supply. In view of the war and its effect upon college enrollment, this number will soon reach the vanishing point with little chance of replacement in view of the required four years of study.

Patent or Proprietary Medicine

WE QUITE agree with the idea behind the pamphlet written by Dr. F. J. Cullen, executive vice-president of the Proprietary Association, that the term "patent medicine" is a misnomer and should never be used by anyone connected with the manufacture, sale, or distribution of drug products. However, we doubt that the public will ever completely drop this term due to its use by doctors and other people who have no great love for proprietary medicines. Neither do we think that an attempt to get people to use the term "proprietary medicine" instead will ever get very far. While going up in an elevator in the New York Biltmore Hotel to the recent Proprietary Association meeting we heard a man ask the elevator operator what floor the convention was on. Whether it was the influence of the war or not we do not know, but the elevator operator consulted a list that was tacked up on the side of the elevator and said, "The Priority Meeting is on the nineteenth floor!

Drug Shortages and Supplies

THE latest information available on the position of the raw materials for drug products was given by Fred Stock, of WPB, at the Proprietary Association meeting last month. His statements follow:

Ethyl alcohol remains critical. Increased demands for synthetic rubber and smokeless powder, will necessitate continuance of the rigid restrictions. Isopropyl alcohol will be more available than ethyl alcohol.

Sugar—we were able to get 125% of base period during 4th quarter of 1943 and 1st quarter of 1944. Currently, we are getting 100% of base period as compared with 70% a year ago. For the second quarter of 1944, OPA has increased the quota to 125%. OPA would like to develop some basis other than a straight percentage of the base year use.

Milk sugar is now controlled under FDO-95 by WFA. Requirements for *penicillin* are being met in full and the most essential drug uses such as *molded tablets* have been placed high in the essentiality scale, but *tablet compressing, capsule filling*, and other general pharmaceutical uses will have to take a cut until the situation eases or new supplies become available.

Sugars and starches from *corn* are extremely critical, since corn has been held on the farm for feeding and very little sold to wet processors. Steps have been taken by WFA to secure more corn for processing products essential to the war effort. Several processors have been shut down for short periods due to lack of corn. Recent reports indicate that processors are now getting supplies. If this favorable action continues, more corn products will be available, but it will be some time before normal deliveries can be resumed.

The *sulfonamides* are currently in liberal supply.

Atabrine has proven to be an effective, safe antimalarial and the quantities available are ample.

The antimalarial needs have not been met with atabrine alone. The work of FEA is bringing forth, sizeable tonnage of Latin American cinchona bark. The quality of this bark is not comparable to Java bark, but the quantity is very encouraging. American processors are converting the bark into totaquine, quinine and the other cinchona alkaloids. Although we are getting some quinine from Latin American bark, there is no likelihood of release of quinine for capsules and tablets for civilian use. Supplies of totaquine are ample, and in order effectively to use the South American bark, totaquine must become the cinchona antimalarial for civilian use.

The recently announced synthesis of quinine has been on a laboratory scale and only minute quantities have been produced. The process is very complex. Additional research will be necessary before the synthesis can be put on pilot plant operations. It is unlikely that commercial synthesis of quinine can be accomplished in the near future. The synthesis is receiving the consideration of the interested governmental agencies. A program will be developed as more is learned about the possibilities of the synthesis.

The *vitamin* situation is not entirely satisfactory. Riboflavin is in ample supply. Thiamin hydrochloride is adequate. Vitamin C is more available than last year, but is not adequate for all needs. This situation was threatened by the corn products situation but we have been assured of adequate supplies for vitamin C production. Nicotinic acid is very critical. Only small amounts are available for ampul medication and nikethamide. Nicotinamide is in short supply. The difficulty has been adequate supplies of the starting raw materials. The nicotinamide situation will reach the crisis in June, after which larger supplies will begin to be available. Vitamin A was recently placed under allocation, and the situation was worse than anticipated. Although a program of ten trillion units per quarter was announced by WFA for the pharmaceutical industry, this quantity has proven inadequate. Stocks are lower than they have been and production during the past few months, has not come up to expectations. Imports do not appear encouraging.

Unless some unexpected increases in production materialize, the vitamin A supply situation will become more and more critical.

It now appears that the drug industry will have to take a 20% to 25% cut in vitamin A. I recommend that you immediately plan to cut production of your vitamin A containing products by 25% or reduce the potency.

Belladonna is in ample supply—so is atropine. Ipecac and emetine have been very critical. Imports of ipecac will have to be channeled to emetine production until the critical situation on emetine shows further improvement.

Demand for *bismuth salts* has leveled out—general pharmaceuticals will certainly not get less than they received in the first quarter of 1944.

Increased Quartermaster demands have necessitated a reduction in pharmaceutical uses of *citric acid* to approximately 75% of base period use. Some improvement is expected in *tartrates*.

Mercurials are in abundant supply—WPB restrictions have been removed.

Phenol supplies are ample and allocations to *salicylate* manufacturers are permitting plants to run at maximum. However, if demands continue to increase, a minor expansion in *aspirin* and other *salicylates* will have to be made to prevent a short supply situation.

At the present time all *penicillin* production is forced into ampul medication. It is unlikely that for many months, any penicillin can be released for ointments and other pharmaceutical compounds. Although production has increased from 425 million units in June, 1943, to over 100 billion units for May, 1944, supplies are not yet ample to meet civilian needs for this product in the form of essential ampuls.

The critical situation of *Oil Peppermint* promises no relief until the new crop comes in about October 1, but a recent survey of stocks and a review of past use indicates that supplies are sufficient to hold out until October 1, under present limitation restrictions.

Menthol is in a similar position, except that imports from Brazil may be expected to afford considerable relief. Importations have been delayed due to the unstable Brazilian prices, but the recent pegging of the price which an importer may pay, should be helpful in obtaining actual deliveries on contracts. Imports are beginning to come in and we look for further improvement, in the menthol supply situation.

Lanolin is now in good supply and allocations for medicinal use are being made on a 100% basis.

Pine oil is available for medicinal use, but you must certify that the use is medicinal.

The *container* situation is the most critical problem before us. There is no immediate hope for improvement in this situation.

The raw materials for bottle manufacture are adequate, but the glass industry is unable to meet the total demand placed upon it. The bottle situation is aggravated by the lack of adequate supplies of shipping containers. More paper and more metal must be made available for containers before the situation will improve. Statements recently made by the Containers Division Officials clearly state that it will not be possible to make additional metal available. The paper situation does not warrant additional supplies—we must, therefore, ask you to live within your quota under L-1030B, the bottle order. You can help yourself by the utmost conservation of shipping containers. Reuse of containers is a *must*. I also ask you to review your present case sizes to—if at all possible—pack in larger number of units per case—24's rather than 12's or 48's rather than 24's.

My opinion, is that the packaging situation will be much worse before it gets better.

Adequate priorities have been given your industry for *maintenance and repair* under CMP-5. Expansions have not been allowed. I do not anticipate any relaxation of the restrictions on expansions.

Birth Rate Past Peak

W. H. GRABRILL, analyst for the Census Bureau, states that our birth rate has already past its wartime peak and will continue to decline until the war is over, perhaps reducing the 1943 birth rate of 3 million to about 2.1 million. At the close of the war, he anticipates a shrap rise for a short space of time after which he expects the long downward trend in the birth rate to be resumed.

Regulation of Exported Drugs

THE question of exportation to foreign countries of drug products which do not comply with the requirements for domestic products sold under the Federal Food, Drug, and Cosmetic Act was taken up some time ago by Mayor LaGuardia of New York when City officials held up some of these shipments. While such shipments were in accordance of the terms of the Act if the products met the requirements of the nations to which they were being shipped, Dr. Thomas Parran, Surgeon General of the U. S. Public Health Service, recently called upon the National Directors of Health of more than 25 countries for a tightening of import and export controls and an international agreement for the protection of the public. Said Dr. Parran:

"I urge you to re-examine your own national food and drug laws. Either by joint action of the Latin-American republics or as individual states we should tighten up existing laws or promulgate new ones so as to make it impossible for irresponsible firms to take advantage of loopholes in the export laws."

Hoge on Bureaucracy

CONCLUDING a most impressive talk on the dual and conflicting jurisdiction of the Federal Trade Commission and the Food and Drug Administration, and the need for reform in administrative procedure generally, James F. Hoge, counsel for the Proprietary Association, stated as follows:

"Argument seldom accomplishes the riddance of an evil. All the argument of generations is not ending war. Ceaseless argument has made little headway against sin. Evil is overcome only as it appears silly. Thus, when men finally see how silly war is, how silly it is to destroy property and kill people, men may come to know war no longer.

"So with the matter of Government regulation. Much of it is beginning to appear ridiculous. That men of creative mind and pioneering will should be dominated by—or should cower before— a vast horde of Government employees, paid in the money of their own making and thus, in effect, their employees, is not only incredible, but ridiculous.

"The victory on foreign fields will accomplish little more than physical security if, here at home, we do not arrest the spreading absolutism of bureaucracy."

Postwar Export Markets

Sailboats in port at Bahia and a general view of the harbor at Rio de Janeiro, Brazil.

THE advisability of attempting to develop export markets for postwar expansion during the present period is being considered most seriously by a large number of manufacturers in this industry. A number of large drug and pharmaceutical manufacturers have taken definite steps to develop Latin-American business within the two and a half years that we have been at war. One large drug and pharmaceutical manufacturer is erecting plants in certain countries to the South of us. Others are sending top executives to these countries to be certain that the arrangements worked out will be sound and of permanent value.

Many manufacturers of drugs and chemicals, who lived through the first World War, have felt that there was nothing to be gained by bothering with this export business. This is for the reason that their experience with this business during World War I taught them that as soon as the war ended, these countries resumed business with the same nations with whom they had done business before the war. As one executive explained it, "As soon as the Armistice was signed, the English boarded ships for Germany to obtain the agencies to sell the German products in Latin-America." The English were allowed to handle these products as agents because of the fact that Germany was broke and needed financing. Consequently, many American manufacturers in various lines treated the South American business during the present emergency as a step-child. They sent them any goods they had left over and they charged them plenty for the goods. Furthermore, they demanded that business be done on our terms, and not on the terms that these countries had always enjoyed from European nations.

It is no wonder that the Latin-American countries returned to their former suppliers for the goods that they needed once the war was over. In addition to this, the Germans in particular had married into many of these countries and were part of them. Another very important factor was that the European nations bought many things from the South American countries and this made this business reciprocal as it should be if it is to last. No country can continue to buy heavily from another country unless the latter country buys something in return. Credit cannot flow only in one direction or it reaches a point of depletion.

There are many reasons why the Latin-American countries offer the best opportunity for development of export business for this industry. Among them are the fact that conditions in Europe are likely to border on chaos for many years after the war—Russia excepted—and trade with these nations might not be possible because of lack of strong governments with currencies that mean anything. As far as the Near East is concerned, we are not sure under what sphere of influence these nations will be. We do not know whether or not Great Britain will dominate the policies of Egypt, Arabia, and Turkey; we do not know if the French will again rule Syria; we do not know if the Russian influence will predominate in Iran and Iraq. The Far East also presents a problem insoluble at the moment. In addition, we are now importing large quantities of materials from the countries to the South of us and these nations are able to buy from us on a reciprocal basis—the only basis that makes for lasting trade. Naturally it is up to this country to see that we continue to buy from the Latin-American countries when the war is over, and there is no valid reason why we should not be able to do so. While some of the materials that we are importing from Latin-America were first imported as substitutes for materials shut off from us, many of these materials give promise of finding a place of their own in our peace-time needs. Also, while some of them are now priced higher than competitive products would be if they could be obtained, competitive prices will doubtless be in effect upon these materials when the war is over and other markets are again opened.

All the countries of Latin-America will come out of this war much stronger financially and economically, and they will be in sounder shape than at any time in their history. They will have no additional staggering debt burden, and their past indebtedness will be adjusted to advantage. Substantial help has been extended by this country for the development of their natural resources. They have accumulated an un-

EUROPEAN PHOTOS

precedented stock of gold and dollar balances upwards of two and one-half million dollars. The basis of their exports has been broadened, and the countries which formerly had a one-crop economy have diversified. As an example, before the war coffee represented a large part of Brazil's exports, but now it ranks third from point of value. National industrial expansion has gone on apace, and real wages have increased everywhere. Latin-America has a population as large as that of this country, and the natural resources are far greater and more diversified than ours were three-quarters of a century ago. These countries are anticipating substantial imigration from devastated Europe, and they will no doubt regulate the influx to secure permanent settlers who will help build up their countries.

Brazil is an outstanding country among the twenty-odd republics to the South of us. This country is more extensive than our own, and has a population of 45 million. Its vast resources have scarcely been tapped. Within the past three years, the construction of a large steel mill has been started to take advantage of huge deposits of rich iron ore and good coking coal. Many successful test wells for oil have been drilled in Bahia. Production of certain vegetable oils has greatly increased, and they are now an important factor in Brazil's exports. Cotton is grown in Brazil, and this has led to manufacture of textiles. Today Brazil is exporting textiles to other Latin American countries including Argentina. Practically every kind of mineral and vegetable wealth abounds in Brazil and there is almost limitless hydro-electric power. As these resources are widely developed, the wealth of the country, and with it the purchasing power of the people, will increase tremendously. And fortunately for this country, many of Brazil's exports, including coffee, are needed by us—which means that the Brazilians will have dollars for purchase of our exports.

As far as this industry is concerned, the present time offers a much better opportunity than was available during World War I for building Latin-American trade for after the war. This is for the reason that, while the German plants were left intact during World War I and were immediately available once the Armistice was signed, they are being destroyed in this war and therefore will not be available for a considerable time after the war is over. The only possible fly in this ointment is that the Germans are believed to have bought heavily into a number of Swiss companies making drug products.

But this leads directly to another reason why the present opportunity is much greater than it was during the previous war. One hundred and twenty trade-marks for medicines and pharmaceuticals which were once owned by German nationals in Latin-America, have been cancelled by a number of Latin-American governments. Leo T. Crowley, Alien Property Custodian, wrote a letter to various drug firms suggesting that "some of the more dangerous of these trade-marks might be acquired by American companies with the intention of permanently sterilizing them by retiring them gradually or immediately from the market."

Sterling Drug, Inc., offered to take such steps as the government thought necessary to retire these trade-marks if no other firm volunteered. Naturally Sterling was vitally interested in such a step being taken, since they have been strongly engaged in developing a Latin-American market for products competitive to the products which the Germans sold there before the war. Mr. Crowley advised Sterling that "It would further the economic warfare program of the United States Government if Sterling acquired the German * * * trade-marks which have been on products similar to those produced by Sterling and which may be available

(*Continued on page 693*)

FUNGUS GROWTH AND DROPLETS FROM WHICH PENICILLIN IS EXTRACTED COURTESY REICHEL LABORATORIES, INC.

POSTWAR MEDICINALS

By E. C. MERRILL,* Assistant Vice-President, United Drug Co.

It is apparent that our supply problems have generally improved with the exception of a limited number of broadly sweeping shortages, such as, alcohol, sugar, glycerin, lactose, citric acid, quinine, etc., but aside from the paper shortage, conditions seem vastly improved over the hectic period of shortages we have experienced during the past two years. With the clearing of the North African Coastal areas and the opening of Mediterranean traffic, we have seen increasingly optimistic reasons for assuming that the supply problem of medicinal drugs had passed its critical peak many months ago.

This now brings us to the point of assuming that beyond the unforeseen and unpredictable turn of events our position with respect to supplies for the production of medicinal products will necessarily improve to a point where with the cessation of hostilities there will be a gradual return to the normal, and with it technical questions relating to those changes that may be expected to be found in the manufacture of medicinal products in which we are all interested.

*Given before the Technical Section, Proprietary Association, May 15, 1944.

We all have experienced during the past two years many alternate suggested materials to serve at least in part as replacement for short materials, glycerin substitutes such as propylene glycol and numerous other products possessing to some degree properties allied with glycerin but lacking, of course, in the completeness of fulfillment of such qualities as to be of wholly satisfactory value. Such qualities seem especially emphasized where taste is a factor—where medicinals of an internal nature are concerned—and in the case of external products where emollient qualities are desired.

In the field of official products propylene glycol has been permissibly officialized as replacing glycerin in numerous N. F. products including several elixirs. Such authorized changes were commendable as a means of cooperation to conserve glycerin. Nevertheless, since the door is open to those who desire to return to the original formulation, there appears to be no reason for not making such change as the supply of glycerin has become more abundant and available.

In the U. S. P., however, conservation of glycerin was accomplished in a limited number of official products by mandatory action in reducing the glycerin content. In certain of the above changes, it may be found desirable to revert to the original formula in view of the greater availability of glycerin. This seems especially true in the case of Elixir of Phenobarbital where the glycerin content was reduced to a point where crystallization of phenobarbital would take place in cold weather, thereby creating a hazard of possible incorrect dosage. This has been called to the attention of the Revision Committee and it is believed that provision will be made to revert to the original formula containing forty-five per cent by weight of glycerin instead of the present authorized formula containing ten per cent of glycerin and ten per cent alcohol.

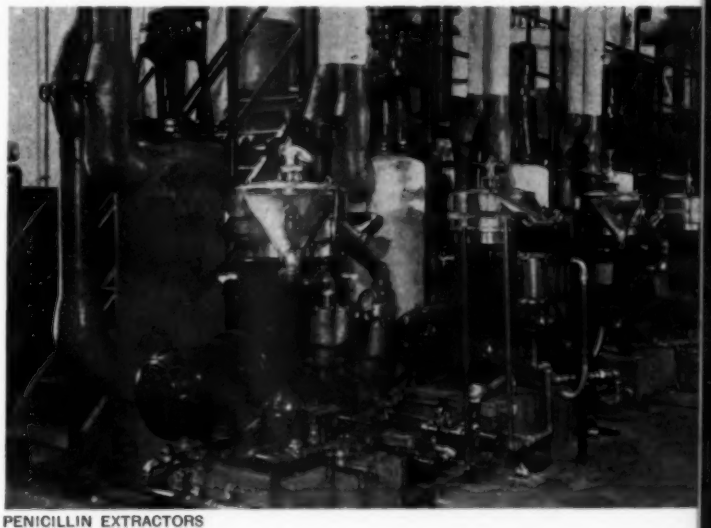
In this connection it would seem worthwhile to suggest that changes made by the pharmaceutical Revision Committee in the interest of conservation of raw materials be optional rather than mandatory where the question of a vehicle is involved that does not affect the therapeutic action of the product.

And so it becomes a technical consideration for decision in individual cases of formulation as to what should be done in those instances where substitute materials for glycerin have been employed. Undoubtedly there will be considerable return to original formulation in many cases since as has been determined no complete substitute is possible.

Similarly have we ahead of us the question of those products in which alcohol conservation has been sought, and our present problem of supply of alcohol for our immediate needs is an extremely active one in the light of a very high production demand of 630 million gallons this year. Alternate materials such as isopropyl alcohol for certain external usage and propylene glycol in certain internal medicinals have served in part to conserve alcohol. This coupled with an increased tax on alcohol emphasizes more than ever the necessity for

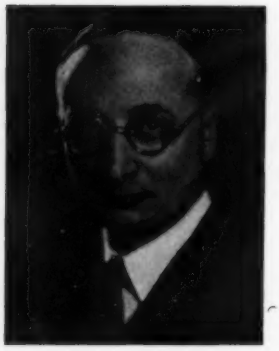
(*Continued on page 719*)

PENICILLIN REFRIGERATION EQUIPMENT



PENICILLIN EXTRACTORS

PENICILLIN FERMENTATION TANKS, CHAS. PFIZER & CO. PICTURES



A.D.M.A. MEETING

A. WILLIAM LESCOHIER, PRESIDENT

As might be anticipated, John G. Searle, retiring president of the American Drug Manufacturers Association dwelt at some length on the subject of medical care in his address to the association's meeting held last month at Hot Springs, Va. Said Mr. Searle: "Given sound management, whose chief aim will be that of service to the community, and who will invest sufficiently in research so as to constantly improve medicaments, there is no reason why this industry should not function efficiently ad infinitum.

"The only possible blight that could occur would be that of State Socialized Medicine, for if the Government took over the practice of medicine it, of course, would soon engulf the manufacturer, for Government-owned hospitals and Government's own services would prepare all products used.

"Today it would seem that so-called popular-front governments throughout the world are planning radical changes for all human endeavor. * * * Apparently they have selected medicine as a logical place to start their inroads. However, in considering medicine, they do not make any charge against the progress of medicine, against the research of medicine, against the amount of medical education or knowledge needed, but rather they confine their criticism to the cost of medical service and the distribution of medical care.

"They overlook completely the many added services to medical practice which, by their very nature, have become indispensable. These today include the need for great buildings, trained personnel, laboratories, equipment, and also the need for highly qualified technicians to aid in diagnosis. Much of this is needed to reinforce the advanced knowledge gained in medical treatment. * * * The social planners disregard the very geographic differences in this vast country of ours which limits these kinds of services in various areas and they suggest one type, one cost, one method, one plan for all. The impracticability of these ideas is immediately apparent. There are too many variants throughout our Nation. There are too many different customs and ways of life. There are too many ways of making a livelihood to enable one national medical plan being applicable to all.

"To me a hospitalization, surgical fee and sickness insurance plan is a 'must' for everyone in our industry. We who are so dependent upon the medical profession should certainly be 100 per cent in their support by seeing that our employees are protected against unusual or prolonged illness. It should also be very definitely part of our individual plans to see that such insurance receives wide publicity and acceptance by all industry. We are only acting for our own selfish interests when we carry out such a program. We are only protecting the future of our business in seeing that the great majority of the working people and their families are covered by such plans."

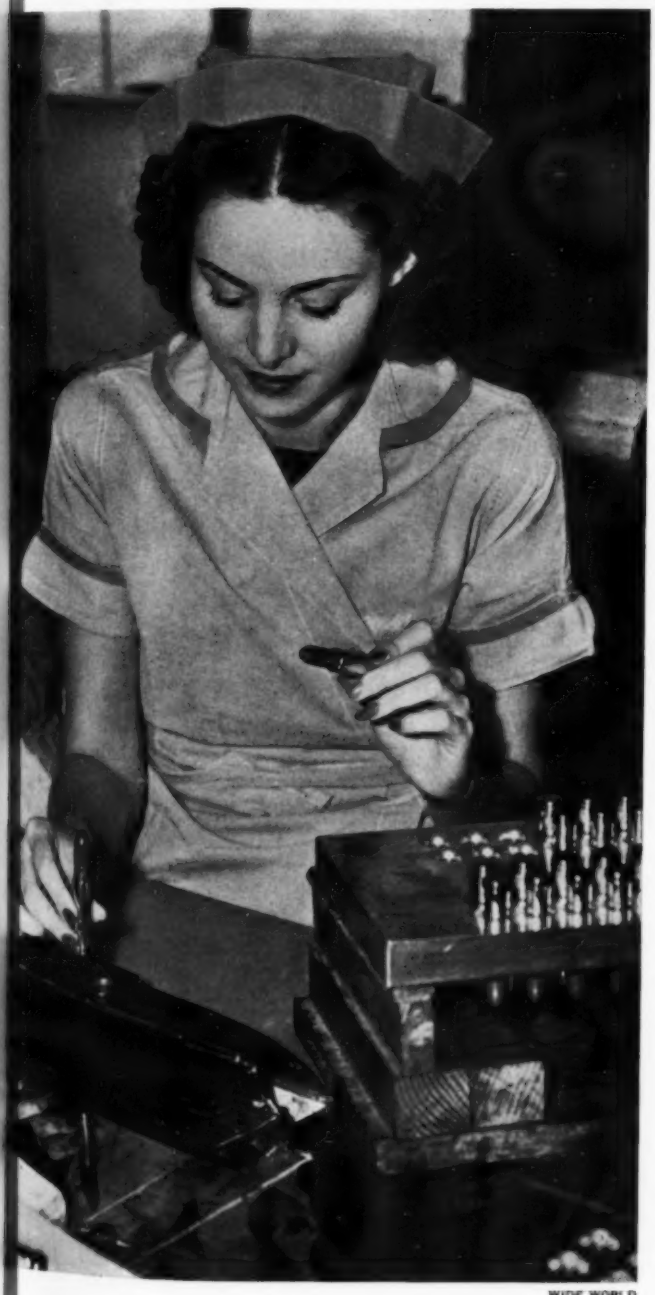
On the demands of the war and medicinal advances resulting from these demands, the association was addressed by Major-General George F. Lull, Surgeon-General of the Army; Brig. General C. C. Hillman, of the Office of the Surgeon General; Captain Eric G. Hakansson, of the Naval Medical Research Institute; Colonel Leonard T. Peterson, of the Office of the Surgeon General; Brig. General James Simmons; Lt. Col. Ralph R. Patch, of the OSGA Sanitary Corps; Captain W. W. Hall, of the Bureau of Medicine and Surgery; Dr. J. F. Mahoney, U. S. Marine Hospital.

Fred J. Stock, Chief of the Drug and Cosmetic Branch of the Chemicals Division, of WPB, told the association of the status of the various raw materials used by the pharmaceutical manufacturing industry. Dr. E. Fullerton Cook, Chairman of the USP Revision Committee, and Dr. Justin L. Powers, Chairman of the Committee on National Formulary of the A. Ph. A., were on hand to take part in the various discussions.

In the election of officers, the Association named as president Dr. A. W. Lescohier, president of Parke, Davis & Company. This is the first Parke, Davis official to head the Association since it was founded thirty-three years ago with Frank Ryan, then president of Parke, Davis, as president of the association. Other officers are: First vice-president, John S. Zinsser, president of Sharp & Dohme; second vice-president, R. Lincoln McNeil, president of McNeil Laboratories; third vice-president, Carleton H. Palmer, chairman of the board of directors of E. R. Squibb & Sons; executive vice-president, Carson P. Frailey; treasurer, Donald S. Gilmore, The Upjohn Co.; additional members of the executive committee: M. C. Eaton, Norwich Pharmacal Co.; Frank F. Law, Wyeth, Inc.; C. N. Angst, Pittman-Moore Co.; F. W. Lawson, The E. L. Patch Co.; R. A. Whidden, Bauer & Black; Thurston Merrell, The Wm. S. Merrell Co.; George Simon, Heyden Chemical Corp.; John G. Searle, G. D. Searle Co.

LIPSTICKS

By H. HILFER*



WIDE WORLD

With all the new preparations that have appeared on the market as replacements for cosmetics already in use, there has been no marked success in producing a substitute for the lipstick. This product, which has had the same form for many years is still the desired means for coloring the lips. Other preparations on the market as substitutes have not cut down the demand noticeably. Most lipsticks on the market have similar consistencies differing only in the "oiliness" or "dryness", whichever the manufacturer thinks is the more desirable. The shade range is, of course, incalculable since in this product there is an opportunity to carry out individual ideas to a greater degree than in any other.

It would be difficult to produce a single lipstick base which would satisfy all consumers. Generally speaking, however, some classification of desirability may be made. Younger women seem to prefer the oily type of stick containing bright flashy colors. Older women prefer a product which only enhances slightly the natural color of the lips and formulated so that there is only a thin superficial film. A large number of different types may be formulated between these two extremes. Before the war brought a supply problem along with it, castor oil was the foundation upon which a lipstick formula rested. This has changed somewhat because of the shortage of castor oil, and subsequent substitutions that were made. The use of these materials has been of relatively recent vintage and it is therefore too soon to form an opinion as to their general efficiency as compared to castor oil. I shall therefore limit my discussion to the castor oil type of lipstick.

Castor oil is in a class by itself insofar as natural fatty glycerides are concerned since it is the only oil which contains an hydroxylated fatty acid—in this case ricinoleic acid. In addition it has a higher viscosity than any other natural oil. Both these characteristics make it ideal for lipstick manufacture. The presence of the hydroxy group makes the oil a good solvent for dyes such as the bromo acid used in lipsticks to impart a stain to the lips. The high viscosity enables a large percentage of it to be used since on application it is not as likely to flow into cracks and crevices of the lips or to spread outside the area of application as an oil of low viscosity. In addition its presence lends a plasticizing effect allowing the stick to retain its rigidity over a wide temperature range. In other words, it is less likely to become too brittle in cold weather or too soft in warm weather.

Other oils may be used in conjunction with castor oil. Hydrogenated oils are desirable because of their unctuous properties and also because their melting points are close to body temperature and therefore make it easier to apply the lipstick. However, there are difficulties which arise with their use also. There is, for example, a quick transition from the liquid to the solid phase over a very narrow temperature range. The possibility therefore arises of the stick either softening in

(Continued on page 723)

*Research Chemist, Lehn & Fink Products Corp., Bloomfield, N. J.

COURTESY OF WYETH, INC.

"No matter what political system is devised, it is still impossible to imagine a qualified medical man in each and every home."

Drugs, Doctors and Demagogues

By O. S. GIBBS, M.D., Ch.B.*

As a medical man trained in the severest type of professional school, the dangers of incompetent meddling with complex matters are clear enough. As a trained and not inexperienced pharmacologist, I hold similar views concerning the uncontrolled use of drugs by untrained people. But, as a practical man, I cannot help being aware that the full therapeutic needs of the nation have never been in the past, are not at present, and cannot be in the future, fully administered only by trained personnel. Indeed, our first lesson lies in the hospital itself. There we find the nursing staff administering drugs about which they know very little, many of which are certainly too dangerous for them either to use or prescribe, except under skilled supervision. Here we have the first point on our curve. Namely, the delegation of certain therapeutic measures to less completely trained personnel.

The next point can be found in the out-patient department. Here, persons with slow-moving, stationary, or trivial conditions are given medicine which they take, themselves, or administer to their children or other relatives. Here we have a delegation of therapeutics to entirely untrained personnel. Moreover, the reactions of the drugs are now watched from an increasing distance by the medical supervisor. In actual fact, the bulk of pharmacological actions of these prescribed medicines are never observed at all by any trained person, as an elementary study of the time of reaction of many commonly used drugs proves. In others, the action itself, even under direct study, cannot be clearly evaluated, for accurate methods do not yet exist. But these drugs are in use as the result of a large consensus of medical experience of a general type, which a study of various Pharmacopoeias and Formulae illustrates. Even where drugs are directly prescribed by a medical man, their action, in the majority of cases, is only rather remotely observed. Moreover, the practitioner, unlike the scientist, cannot be assured that his medicine has been taken with any regularity, or even at all! This latter factor I have personally observed to

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Delivered before the Scientific Section, Proprietary Assn., May 15, 1944.

be a rather notable feature of officially controlled medicine. In the Army, some efforts were occasionally made to overcome this difficulty, and pills were watched into the mouth by the attending staff sergeant; but, even then, they didn't all go down the gullet! In British Social Medicine, no such control exists and a deal of good medicine goes down the drain, for the patient must return at the appropriate time with his empty bottle, or face the danger of losing his financial medical benefit for disobeying his prescribed treatment. Incidentally, gold therapy is the uncontrollable, ugly, and adverse factor which advocates of social medicine do not seem to understand nor appreciate, for, under this system, the benefit certificate becomes far more important than the medical prescription. Nevertheless, there still remains one common factor,—that the treatment is initiated by a medical man.

The question arises as to whether all cases require such a high degree of skill for this purpose. Official medicine has never ceased to denounce lay or amateur diagnosis and prescription, though neither the past nor the present has been entirely free from the thought that such activity was entirely unselfish. There is no question at all that the greater the skill available, the better may a repair job be carried out, and to aim at a theoretical ideal, even if practice may fall far short in actual performance, is better than to have no ideals at all. But even in this remarkable country, it is absolutely impossible to obtain such service, partly because it is too costly, and partly because there is not enough trained personnel. Nor—and this must also be appreciated—will there ever be, for such training represents a large capital investment and demands an economic return. I am not speaking in terms of cash, but of national facilities. No matter what political system is devised, it is still impossible to imagine a qualified medical man in each and every home.

Sometime ago I calculated that if all the aspirin actually consumed in this country had been ordered by medical men in the customary manner, namely twenty-four tablets of five grains, each of 150,000 medical personnel would be daily engaged in writing sixteen such prescriptions. At the standard fee of $2.00, this would amount to the not inconsiderable sum of $175,000,000 per year, largely for the alleviation of quite transient, if unpleasant, symptoms. If we take into consideration the other therapeutic sides, such as laxatives, local antiseptics, bandages, adhesives, simple ointments, dusting powders, and the like, used by the laity for simple, obvious matters, on the same professional basis, two clear-cut conclusions inevitably result. No country could possibly supply sufficient medical skill for this direct treatment, and the economic resources would be utterly unable to pay the bills. If we must consider that all cases from a scratch on Bobby's legs, repeated almost daily, to the treatment of a detached retina requires skilled medical attention, it is equally obvious that the only possible way this problem could be even partially solved would be by the use of mass philosophy, in which the requirements of each individual human is displaced to a position secondary to the functioning of a gigantic machine which must, of necessity, be politically dominated.

With this change in medical philosophy, at present based on the individual, for pain is indeed a very personal affair, there would automatically follow the destruction of the profession itself which would be replaced by suitably trained groups of technicians whose interest would naturally lie only in the derived results of their own efforts, and to whom the concomitant emotions of distressed humanity would be of no concern, except, perhaps, as an added difficulty in their technical movements. Official forms, a necessary concomitant of such machines, are difficult enough to complete correctly, without the disturbance occasioned by a terrified mother and her hysterical baby. But, let there be no mistake about this, the correct procedure would inevitably take precedence over the demands of the individual.

Such considerations show that the problem of human repair and maintenance cannot be solved by academic discussion and vain ideals. The presently constituted profession, of which I am a member, is quantitatively incapable of handling even the number of cases obviously demanding skilled attention, without assistance. Still less can they cope with the mass of trivial injuries and transient symptoms which, nevertheless, require some attention. To persist in the old, philosophy that the actual, bodily presence of a medical man is utterly necessary before any treatment can be instituted would appear capable of serious modification. In fact, a great deal of such treatment is now carried on over the telephone by the medical profession itself, and also whatever may be the ideal, the fact remains that quantitatively, more cases are treated by such remote control than by the direct visitation of the medical adviser. This is illustrated by a study of the drugs actually used. W. B. Yater, in the J.A.M.A., August 1, 1942, mentions the approximate order of the relationship to be 14% to 86%.

What the world needs is good medicine and a great deal of it, but the only way this may be accomplished in practice, with the corresponding elimination of superstition and quackery, is to spread the available skilled knowledge in a more effective manner. While, for example, there remains the illusion of "ethical" drugs, as contrasted with " non-ethical"preparations, fostered by medical leaders, yet both being actually manufactured in the same plants, by the same machinery, and by the same skilled men, and controlled by the same degree of care, progress cannot hope to be speedy, nor the most efficient development of therapeutic materials accomplished.

Some conditions require all the skill the profession can muster, but these are fortunately rare, and the great bulk of serious cases do very well indeed in the hands of the average practitioner, as is clearly shown by a study of mortality and morbidity tables. On the other hand, hardly any member of the public may escape

(*Continued on page 725*)

H. L. BROOKS, PRESIDENT

T.G.A. MEETING

IN THE two-day business meeting of the Toilet Goods Association held in New York last month, an outstanding address was delivered by the association counsel Hugo Mock who not only weighed the legislative trends as they might affect cosmetic manufacturers, including the possibility that manufacturers might possibly lose their present right to choose their customers, but who drew from his analysis the following interesting predictions:

"First, competition is going to be much fiercer after the war. It would not surprise me if there would be less units in the industry after a few years than now. Furthermore, you will have to rely less on your selling methods and more on the value and distinctiveness of your products. Your profit margin will be cut down even if you do not have to supply everybody who has the cash to buy your products. There is going to be more resistance and opposition to special promotions, special discounts, special allowances and the like. Some of you are going to look back upon these hard times as easy times.

"Secondly: you are going to have increased competition or infiltration from the drug trade. You know that many of the important drug houses already own or are affiliated with cosmetic companies. This practice is going to increase. Furthermore, more of you are going into the drug trade in a limited way. I mean in the exploitation of cosmetics which also have a medicinal effect in part—cosmetics fortified with hormones or with some of the new marvelous discoveries in skin remedies. There will be more products which are both drugs and cosmetics.

"Third: National advertising is going to help some of the members of this industry and is going to assist in the more rapid elimination of others."

Attendance at the meeting reached a new high with 743 members and guests attending the lunch on the first day. Herman L. Brooks, president of Coty, Inc., was re-elected president for the ninth successive year, being the only president that the association has ever had. Other officers are: First vice-president, Paul H. Douglas, Bourjois, Inc.; second vice-president, William M. Bristol, Jr., Bristol-Myers Company, New York; third vice-president, H. P. Willats, Colonial Dames; treasurer, Paul F. Vallee; secretary, Joseph A. Danilek, Lehn & Fink Products Company; executive secretary, S. L. Mayham; director of Board of Standards, H. D. Goulden.

Of particular interest to those attending the meeting were reports by Elmer B. Tysdal, of WPB on conditions in cosmetic raw materials and containers; F. J. Solon, of WPB, on containers shortages; by Francis T. Dodge, president of Dodge & Olcott, on conditions in essential oils; and by A. L. van Ameringen, president of van Ameringen-Haebler, Inc., on conditions in aromatic chemicals.

Mr. Tysdal stated that labor and paper were the limiting factors in glass containers; metal containers and closures will not ease in the near future; no changes are contemplated in collapsible tubes; peppermint oil supplies depend upon weather conditions, labor, and other factors that might affect the size of the crop; lanolin has eased largely due to three additional mills which are now recovering lanolin and this might mean increased quantities for cosmetics; there can be no relaxation on cellophane; alcohol will continue critical; isopropyl alcohol will be very tight until October because of preparation of anti-freeze, but increased production is anticipated in the Fall; talc is easier; triethanolamine and propylene glycol are in good supply; titanium dioxide continues tight.

Mr. Dodge stated that "with Madagascar and the neighboring islands again in French hands, with North Africa, Sicily and the land of bergamot at least on the verge of commercial intercourse, importers who thought they had boundless courage when purchasing during 1940-1943, are now proceeding to buy goods abroad with all their fingers crossed and with a degree of uncertainty as to the near future."

Mr. van Ameringen said that the shortage of technical benzaldehyde and metacresol caused much trouble during the past year resulting in shortages of several cinnamic derivatives and less musk ambrette. Lack of Java citronella oil and spotty supplies of bois de rose limited the quantities of linalool, linalyl acetate and geraniol.

ANTIPERSPIRANTS

THE horror of B.O. has been propagated for many years now and evidently with good results. The sale of preparations to prevent this social stigma has increased steadily and the end is not in sight. Although antiperspirants have attained wide acceptance their use is still far from universal among our women and has only begun to be considered by men. It seems therefore that this field of cosmetics has room for much future expansion.

This article concerns itself only with true antiperspirants which, by and large, are more useful than deodorants, on the ground that it is better to abolish the cause of a condition than to treat the symptoms. Even if the unpleasant odor is removed by a deodorant, underarm perspiration is still unsightly, uncomfortable and destructive to clothing. So why not stop it altogether!

A mere deodorant is indicated as an underarm application only in those cases where an individual is oversensitive to the acids of antiperspirants or feels uncomfortable because of their strong astringent effect. Then, of course, deodorants have their rightful place in connection with feminine hygiene, a field not discussed here.

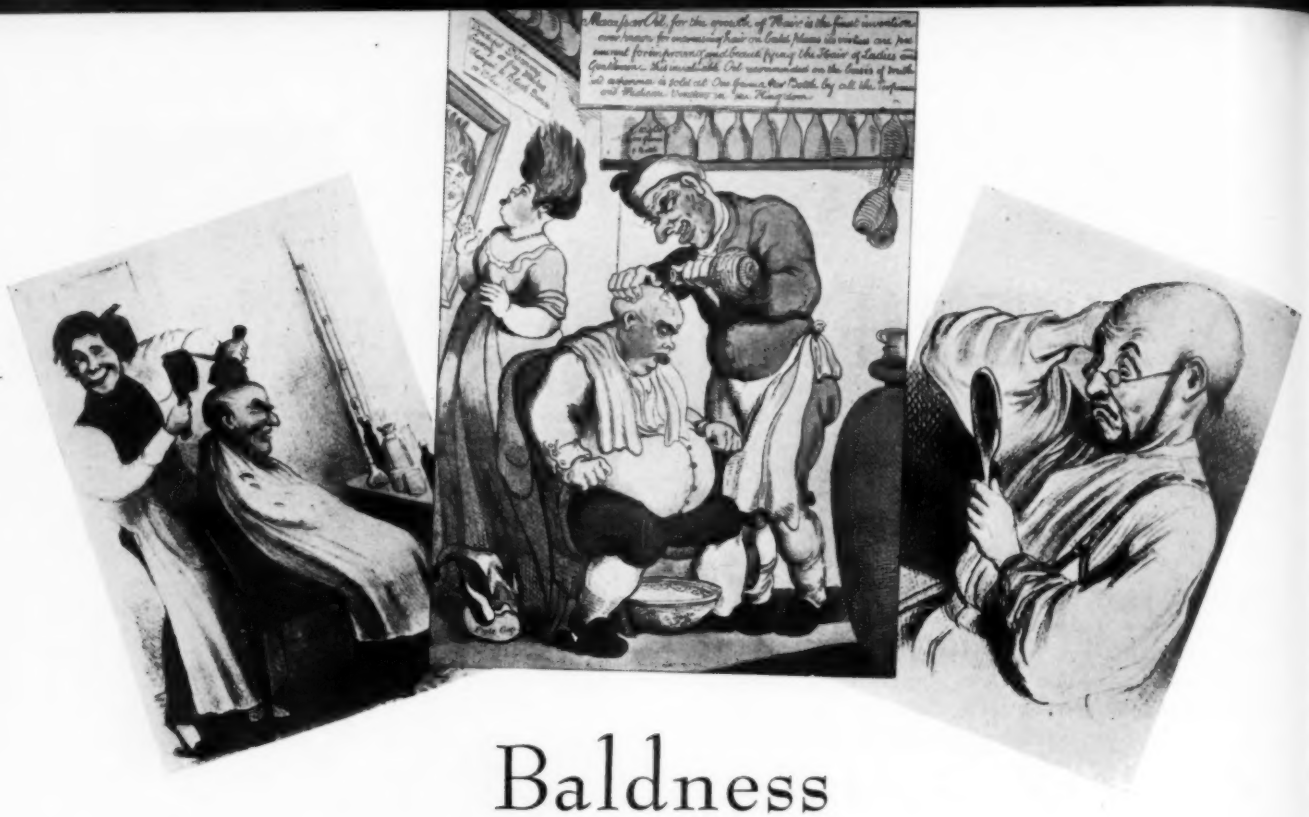
Two forms of antiperspirants are suitable: Cream or liquid. Both are equally effective and the consumer's choice is purely a matter of personal preference. I creams appear to be gaining in popularity it is probably due to the fact that they do not require waiting after application in order to dry, as liquids do. Besides a cream can safely be transported, while a leaky bottle of antiperspirant is liable to damage other contents of bag or suitcase.

The principle on which all antiperspirants are based is a strong astringent effect which contracts the pores so that perspiration cannot flow out. Aluminum chloride and aluminum sulfate are most suitable and almost generally used to produce this effect. The chloride appears to lead in the formulation of liquids, while the sulfate constitutes the active ingredient of most creams.

The formulation and preparation of liquid anti-

(*Continued on page 732*)

Hold a minute with Mum . . .
prevents risk of underarm odor
keeps you nice to be near!
MUM
"Is it okay to have dinner with the BOSS?"
It's Etiquet that checks underarm perspiration...stops odor, too!
Etiquet
Charming Adrienne Ames
NEW...a CREAM DEODORANT
STOP PERSPIRATION
ARRID
1 Woman out of 5 Perspires Excessively
AND NEEDS THIS TYPE OF DEODORANT
LIQUID ODO-RO-DO
Use FRESH and stay fresh!



Baldness

By M. A. LESSER

BALDNESS, so they tell us, lends a certain dignity to a man—it is a sign of the thinker. Besides, it is argued, hair has lost its importance as a protective structure and is now but a vestigial remnant of a primitive age. Nonetheless, at the first sign of thinning hair, hardly a man hesitates to use every means in his power to prevent further loss of hair and to restore that which has vanished. As Rattner[1] has remarked, "Because man has never been obtuse to vanity, he has searched frantically down through the ages for ways to avoid baldness and to overcome it." The search still goes on, and while some progress has been made, the problem still awaits solution.

Although alopecia sometimes occurs in women, the problem of baldness is essentially one of masculine gender. Dermatologists describe a variety of types of baldness, including the rare congenital alopecia and senile alopecia which is common after the age of fifty. However, alopecia areata and premature alopecia are the most important forms of baldness and the types for which treatment is most commonly given.[2, 3]

Alopecia areata or patchy baldness is characterized by circumscribed, round or oval patches. These patches may be variable in size, may occur anywhere, but are more common on the scalp or bearded regions. This loss of hair is attended by no symptoms and is usually rather rapid and is frequently unknown to the victim until brought to his or her attention.[4] There is little known with certainty concerning the cause of this condition. The important theories advanced to explain alopecia areata are based upon infectious, toxic, neuropathic and endocrine factors.[5]

Premature baldness, that is alopecia occurring before the age of thirty, may be divided into cases attributable to seborrhea capitis, those caused by systemic disturbances such as acute febrile diseases, chronic systemic disorders and neurogenic factors, and those instances for which no cause can be found except a family history of early baldness.[2]

It is therefore apparent that a wide variety of factors, often overlapping, may enter into the causes of the common types of baldness.[6] As pointed out by Calloway[7] in his discussion of alopecia areata, the theories advanced to explain baldness all have some fundamental basis for their concept, but they will not explain every case.

There can be no doubt that heredity plays an important part in premature baldness.[1] Years ago, after an extensive study of this phase of the subject, Osborn[8] reported that baldness was inherited as a sex-limited trait, dominant in the male and recessive in the female, and that it was directly inherited from father or mother to son, even though the mother herself was not bald. She also noted that a man who did not show baldness himself did not transmit it to his children.

Obviously a person with a known hereditary predisposition to baldness must take special precautions to overcome this inherent tendency. Hygiene of the hair and scalp is especially important but shampooing should not be overdone. After a hair wash it is often

beneficial to brush the hair with a brush slightly moistened with a simple brilliantine, such as the following:

Castor oil	4.0 cc.
Expressed almond oil	30.0 cc.
Glycerine	15.0 cc.
Alcohol, to make	120.0 cc.
Perfume	sufficient

For excessively oily hair, a "dry" shampoo, such as the one given below, or even starch or other absorbent powder, rubbed into the scalp at night and brushed out the following morning, as often as required, may be more hygienic than too frequent shampooing:

Salicylic acid	1.5 Gm.
Precipitated sulfur	15.0 Gm.
Talc	15.0 Gm.

An abundance of fresh air and sunshine are indicated, as is a daily brushing of the hair to provide gentle stimulation. Fingertip massage of the scalp is especially beneficial. Traction on the hair must be avoided as should the use of fat solvents, excessive heat and other agents which tend to make the hair brittle.[2]

Confirming the old belief that worry and other mental aggravations are frequent causes of baldness is the fact that many authorities[9] list psychic factors among the prime causes of alopecia. Calloway,[7] for example, attributes most cases of alopecia areata to one or a combination of such factors as nervous tension, psychic trauma and chronic fatigue. The field of psychosomatic medicine, though comparatively new, has done much to explain the relationship between physiological dysfunctions and mental stress. Its further extensions may hold the answers to many cases of baldness. In the meantime, physicians often recommend surcease from worry, and stress the need for mental rest. Such advice is often easier to give than to take, hence more positive measures such as sedation or a vacation often yield more definite results.

Very often baldness is part of the symtomatic picture of or sequelal to systemic diseases. Syphilis is frequently guilty of causing alopecia areata.[4, 7] Toxic or febrile alopecia frequently accompanies typhoid fever, influenza, pneumonia, septicemia, and other severe sicknesses. In such cases the hair becomes considerably thinned, sometimes almost totally lost. However, in such instances, the prognosis for regrowth is good.[10] Foci of infection are sometimes responsible for baldness. Tooth disturbances have been mentioned as a cause of alopecia; the hair returning after the correction of the condition.[11]

It has long been recognized that the character, growth and distribution of the hair is tremendously influenced by the endocrine secretions.[12] Thus, according to Lynch,[13] the texture of the hair is controlled mostly by thyroid function, growth is chiefly subject to the pituitary gland, and its distribution is a result of gonodal activity. Unfortunately, endocrine disturbances associated with hair losses are varied and highly complex.[9] It would appear that while the evidence for an endocrine influence is abundant these data are difficult to interpret and that a practical knowledge of mode of action of these secretions is lacking.[1, 12] Although some successes have been reported, in the main the results of endocrine therapy for baldness have been disappointing.[14]

Thyroid administration has sometimes been useful in cases of baldness. Marinus[14] has noted that in alopecia areata there is frequently a regrowth of hair in the bald spots following medication with thyroid extract. However, if treatment is continued the condition recurs and new bald spots appear which are not improved by changing the thyroid dosage. Hence, it seems that the effect of thyroid in such cases is nonspecific and that the alopecia is not the result of thyroid deficiency. In 1936, Bauckus and his associates[15] obtained good results by adding thyroid medication to the usual management regimen generally employed in treating alopecia areata. With the added thyroid administration new lesions did not develop so quickly, recurrences were rarer and new growth and regrowth of hair was much faster.

Over a decade ago, considerable hope for baldness was raised as a result of Bengston's[16] report on the use of pituitary preparations in the treatment of alopecias in persons with obvious endocrine dysfunction. Misinterpretations of his findings led to a flurry of excitement that has not yet died down in some quarters, despite the fact after further extensive study Bengston[17] stated that pituitary preparations were of no practical value in premature alopecia. Although others have suggested the use of pituitary, generally by implantation,[18, 19] most dermatologists have failed to find benefit from the use of this gland or its products in the treatment of baldness.[1, 14, 20]

Because baldness is so much more common in men than in women and because men lose their hair in a different pattern than do women, the relationship between sex hormones and baldness is one clue that has been carefully followed. A great deal of experimental work with sex hormones has been reported[21, 22, 23, 24, 25] but the findings have been rather contradictory in many instances, making it difficult to draw any definite conclusions. While female sex hormones have occasionally proved effective in specific instances of baldness in women,[26] so far, the administration of male hormones after the loss of hair has become established has failed to yield favorable results in men.[27]

In 1941, in an appraisal of the endocrine factors in the causation of alopecia areata, Waisman and Kepler[28] expressed the opinion "that endocrine treatment, at least in the present state of its development, is ineffectual."

A poor nutritional state may be a causal factor in baldness, hence it is not surprising that vitamins have found frequent use as part of the general regimen to build up the individual. It was not until 1940 that Wooley[29] described a member of the vitamin B complex which he called the "mouse antialopecia factor." Further work[30, 31] showed that this dietary essential

(*Continued on page 727*)

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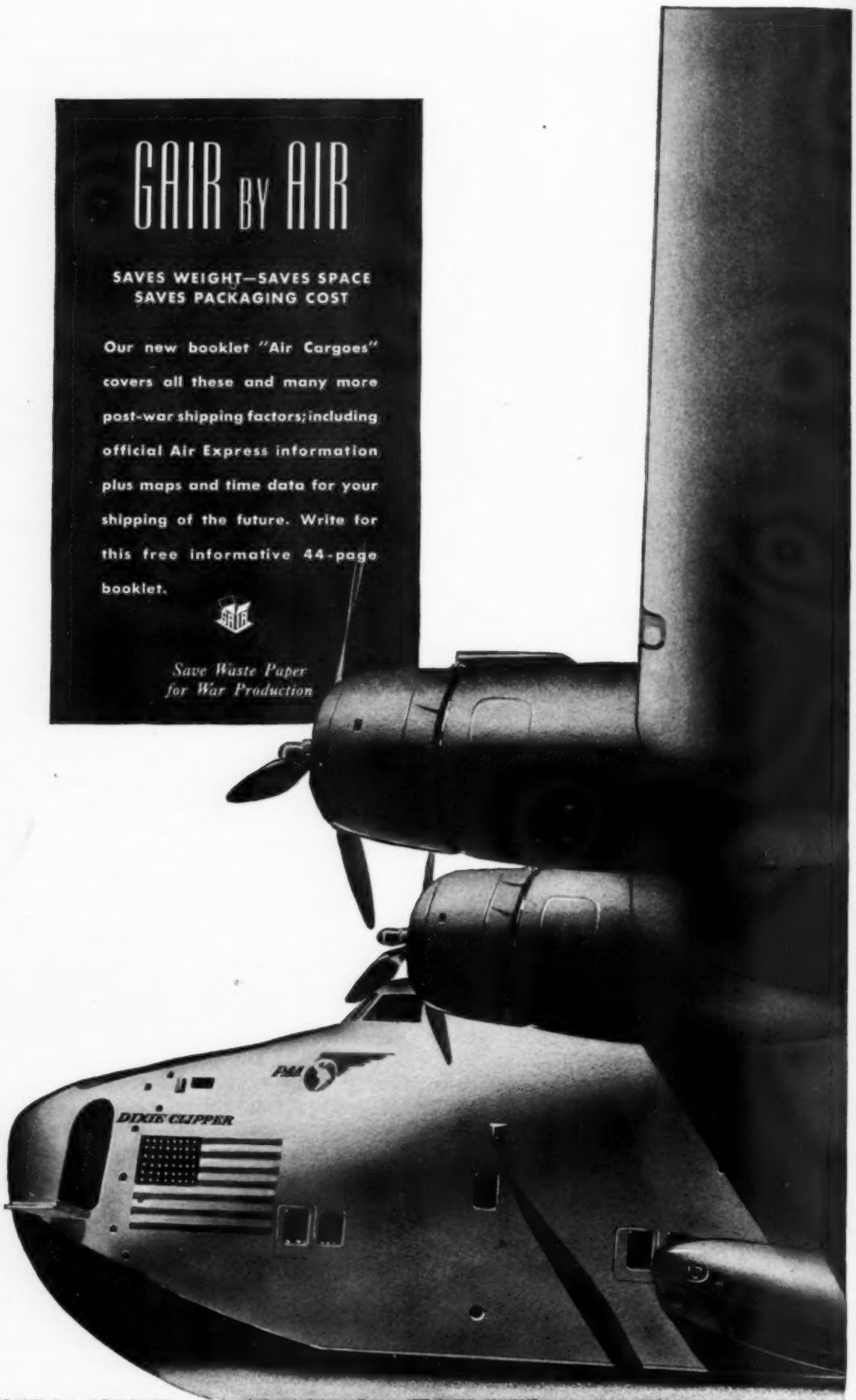

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Packaging and Selling

Cosmetic Sales Future

One of the wisest and most succinct projections of the cosmetic merchandising future we have ever heard came from no outstanding sales manager but from the distinguished counsel of the Toilet Goods Association, Hugo Mock. Speaking before the membership at the May meeting he said, concerning this future that "First, competition is going to be much fiercer after the war. It would not surprise me if there would be less units in the industry after a few years than now. Furthermore, you will have to rely less on your selling methods and more on the value and distinctiveness of your products. Your profit margin will be cut down even if you do not have to supply everybody who has the cash to buy your products. There is going to be more resistance and opposition to special promotions, special discounts, special allowances and the like.

"Secondly, you are going to have increased competition or infiltration from the drug trade. You know that many of the important drug houses already own or are affiliated with cosmetic companies. This practice is going to increase. Furthermore, more of you are going into the drug trade in a limited way. I mean in the exploitation of cosmetics which also have a medicinal effect in part—cosmetics fortified with hormones or with some of the new marvelous discoveries in skin remedies. There will be more products which are both drugs and cosmetics.

"Third, national advertising is going to help some of the members of this industry and is going to assist in the more rapid elimination of others."

The Richard Hudnut business was started in 1880 at the corner of Ann and Broadway in the "Herald" building.

Speaking of Firsts

Taking up where we left off in March, we have been digging into the records on Richard Hudnut, certainly one of the earliest names in American cosmetic history. Like V. C. Daggett, he, too, started his business from a neighborhood drug store located in the Herald building at Ann Street and Broadway in New York. He opened this store in 1880 and the accompanying illustration from Leslie's Weekly in 1881 shows his mortar and pestle and the name Hudnut's hanging above the door. It seems fairly certain that he sold "Violet Sec" from his first day in business which establishes it as one of the earliest American toilet waters, dating as it does from 1880. He was also first to make a cosmetic cream of a cerate, a stiff waxy cream which had had some medicinal use up to that time but which he perfumed with Violet Sec and sold as Violet Toilet Cerate.

The dates when he added other products are a bit vague but by 1897 he was doing a considerable wholesale business at 925 Broadway and handling a large line of perfumes, colognes, toilet waters and sachets, as well as creams,

powders, liquid rouge, dentifrices, hair preparations, liquid nail enamel, mascara and perfumed saponaceous bran bags for the bath. His first paste rouge apparently came a bit later and was packaged in a purple satin box decorated with a gold eagle. He may have been the first to package a lipstick in a metal case and he was among the earliest to market a metal compact. The lipstick was called "Lillian Russell" and the case was shaped like a pen knife. The first of the DuBarry line was presented in 1898.

"Referring to your article in the March issue entitled, 'Speaking of Firsts,' mention is made therein of the early use of mineral oil in cold cream by Daggett & Ramsdell," writes H. F. Copeland of L. Sonneborn Sons, Inc. He adds that, "the name of Sonneborn was prominently identified with this early use of mineral oil by Daggett & Ramsdell--first through white mineral oil supplied by the firm of Stern-Sonneborn and later by L. Sonneborn Sons, Inc."

We're trying to jog Mr. Copeland's memory concerning some of the other early arrivals in the field. Watch these columns to learn how we make out.

There's a Reason

The following bit is from "Domestic Commerce" and our only comment is that there must be some relation between the facts related and the thousands of new men in circulation in those places. Or, if that doesn't suit, it's due to the scarcity of men. It can't be just pure inflation.

"London war workers are spending more than one-quarter of their incomes on beauty treatments, the British trade press states. The weekly expenditure of suburban women on hairdressing, cosmetics, and facials now averages from 15s. to £1 (about $3 to $4). Many who in peacetime would have spent 3s. 6d (about 70 cents) every 3 weeks for a simple shampoo and wave set now pay nearly three times that amount every week for elaborate treatments.

"Australian women have to put their names on priority lists and wait 6 months in order to get cosmetics legally. Reportedly, as a result of this ruling, black markets flourish, one recently having been broken up while doing a reputed weekly business of £45,000 ($180,000).

"The women of New Zealand have given up skirts for trousers, and dainty shoes for hobnailed boots, but the use of cosmetics is increasing markedly."

The Cosmetic Trend

Top executives of department stores and chains are studying their toilet goods counters with an eye upon likely post-war developments. What they are trying to get at this time is an answer to the question, whether their cosmetic departments will continue their phenomenal growth into the post-war period, or whether they have reached the end of their expansion and are likely to settle down to a state of comparative quietness.

Looking over their charts they find that growth was fairly rapid as the depression lost hold but that the recession of 1937 brought about a decline which lasted well into 1939. Is the following rise, that sent cosmetics up to their present volume, exclusively an outgrowth of the war or were other forces at work that helped cosmetic counters to their current prosperity? Interest in the subject is not just one of statistics but of post-war store-policies, as they are shaping themselves now. If stores have to handle an approximate 25 to 50 per cent sales increase after the return of peace, composed primarily of the sales of durable articles which are now absent on their floors, they will have to increase their facilities. More space will be required to accommodate new stocks, more salesmen. Financing of inventories will become more difficult.

Cosmetics have made a very useful contribution to sales without unduly encroaching upon the space and manpower needs of other departments. However, another ten per cent rise in their sales will make them bulge over. Stores want all the business they can get, but cosmetic buyers are asked how they propose to handle the larger traffic within the space and manpower limits that can be placed at their disposal.

Buyers believe that the department store counters have not handled more than an equal share of the all-over retail sales of cosmetics. They even feel that in some groups of items, those that were mostly benefited by war conditions, they have had less than some of their competitors. Mentioned are occupational cosmetics where the drug stores have done the bulk of the business largely because of the longer opening hours and the lower priced lines. Chains have built a growing following among the lower paid women workers and younger customers. Most of the growth of the department store business has resulted from a general widening of the department store clientele.

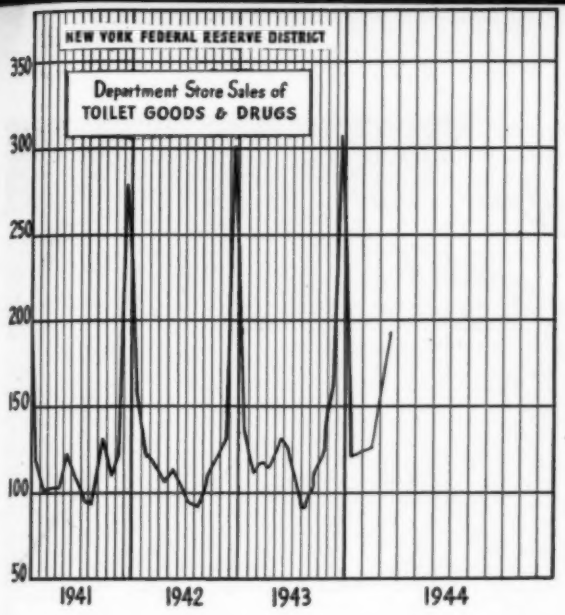
No change in this situation is foreseen if the national earning power will maintain itself upon present or only slightly lower levels after the war. However, if employment should decline heavily department store counters are bound to lose, unless they are willing to compete more heavily in the future for the low-priced customer than they have in the past. As space requirements grow with a proportional volume of low-priced goods, department stores may see themselves compelled to add to counter space and sales help. This, in turn, can be expected to lower the profit ratio of their toilet goods counters.

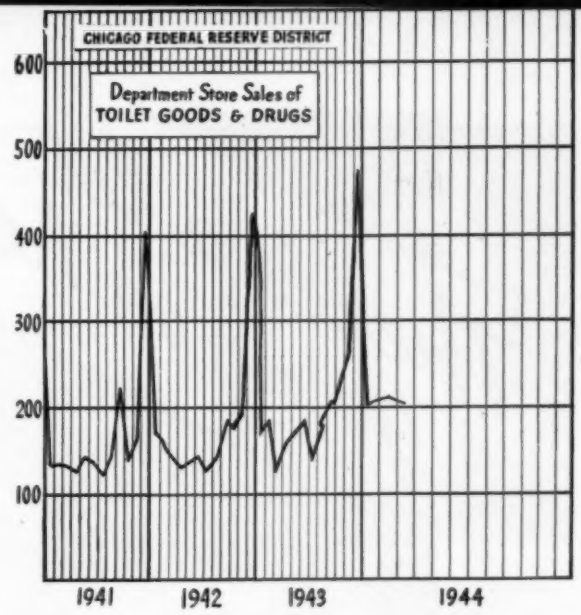
The present concern of store managements is likely to wake up buyers to the needs of preparing now their assortments for the inevitable adjustments that will have to be made with the coming of peace.

Toilet goods manufacturers will do well to keep themselves alert to this situation. Old established brands, or those than can maintain their new war-time position in the customers' list of indispensables, are bound to find preferential treatment when the weeding out process gets under way. Buyers are bound to keep themselves more closely informed upon the purchasing inclinations of their clientele. Articles which drop below hard headed comptrollers' requirements are looked upon with growing suspicion.

Plastics Output

Phenol formaldehyde resins, with an aggregate production of 283,400,000 pounds, led all plastics output during 1943, E. M. Houts, War Production Board allocation officer, disclosed in a report to the Society of the Plastics Industry, Inc., Phthalic alkyd resins ranked second with production set at 147,000,000 pounds, while melamine and urea resins placed third with 123,600,000 pounds. Total production was set at 951,000,000 pounds, having a value of $362,740,000.





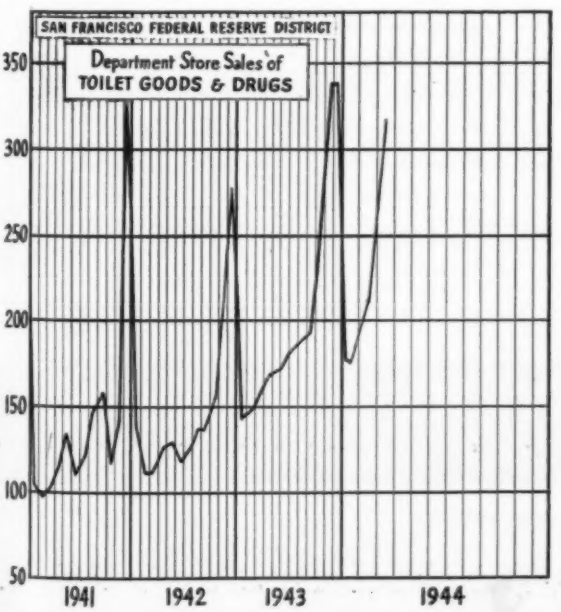
Let's Look at the Record

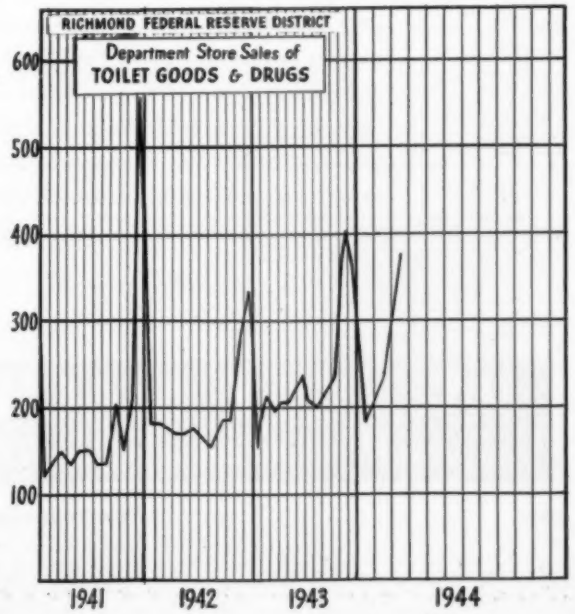
March was really something in the cosmetic business as proven by the Federal Reserve figures for that month which set many records, thanks to the pre-tax buying in an already good business period. Our index numbers and records based upon the Federal Reserve returns go back to 1933 and its interesting to see just what March meant in terms of previous business and how dramatically volume has increased in recent years.

In the first place, cosmetic business in the New York area was 162 per cent of March 1943. In Chicago it was 171.7 per cent; in San Francisco, 197 per cent; and in the Richmond district, 191 per cent of March 1943. In each district, the percentage of increase for that month was by far the highest ever recorded for any month in terms of the same month of the previous year. For example, the nearest in New York had been 130 per cent for September 1941 and 134 per cent for January 1942. The closest Chicago had ever come to the 171.7 per cent was in September 1941 when sales hit 150 per cent. In San Francisco, the closest to the 197 per cent was a mark of 166 per cent in November 1943. In Richmond, the 191 per cent increase over March 1943, was over twice as large as any previously registered in any month.

The index numbers established in March sales of cosmetics are also revealing. In the New York district, the index number of 192 for March has been exceeded only by December index numbers for the years back through 1935. In Chicago area, the index number of 204.1 for March has been exceeded several times during the past six months as well as in every December of record. In the San Francisco district the index number of 315.9 has been exceeded only twice—in November and December of last year when it hit 336. In Richmond, the index number of 374.1 was exceeded only in November of last year when it was 404.2.

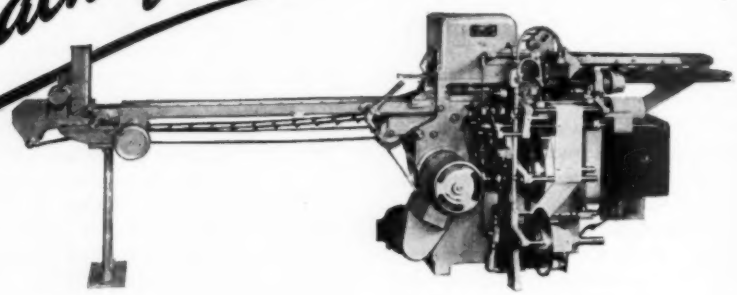
However, the 12-month averages are probably most revealing of all. In New York, the 12-month average of 143 is the highest in history and represents an almost uninterrupted rise since December 1935 when it was 97.5. In Chicago, the 12-month average of 187.9 was exceeded in January with 206.5, December with 203.1, as well as in November, October, September and August. But these averages represent a steady rise from 129 in January 1939. In San Francisco, the 12-month average of 235.9 is the highest of record and again represent an almost uninterrupted increase since the middle of 1939 when it was 118. In the Richmond area, too, the 12-month average of 239.9 is the highest of record and represented what was practically a continuous increase from the 133 which was the average early in 1938.





There's a lot going on here...

that will lead to better packaging



Some types of war work will have a particularly valuable peacetime carry-over...We can see that in our own plant. For it so happens that the larger part of the equipment we have built for war has called for a high degree of inventive ability and engineering skill. The advancements made in mechanical design, as well as the ideas gathered in the course of this work, will be reflected in our post-war packaging machinery.

We'll be glad to study your requirements now, with a view to supplying you with the most modern types of machines at the earliest permissible date... *Our post-war plans, you see, must be keyed to our customers' needs.*

Get in touch with our nearest office

PACKAGE MACHINERY COMPANY, SPRINGFIELD 7, MASSACHUSETTS

NEW YORK CHICAGO CLEVELAND LOS ANGELES TORONTO

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

Sweet of the Hay

A new line of cosmetics comes from Boston called "Sweet of the Hay" by Susan Dudley Buttermilk Cosmetics Co. The line consists of a cleansing cream called a beauty cleaner, a foundation lotion called beauty base, and a night cream called beauty cream. Some department store and specialty shop distribution has already been obtained through the east and an intensive advertising program is being planned for further distribution. The cleanser retails for $1 and $1.75, the base for $2 and the beauty cream for $2.50. Sweet of the Hay beauty products boast real buttermilk as the basic ingredient. The creams are perfumed with a soft fragrance of new mown hay and the package is designed to capture a vision of blue skies and golden grasses.

Baby Cosmetics

A new departure for Dorothy Gray is the announcement of a package containing four products for baby care. Attractively packaged in the familiar blue and white of Dorothy Gray products, and decorated with pink bowknot and ribbon motif, the four items sell for $3.50. The baby box includes: Baby oil, an antiseptic oil containing lanolin used to cleanse and lubricate a baby's skin; baby softening skin cream which helps soften and remove skin scales on scalp and behind ears and also helps prevent chapping and windburn; baby anti-chafing ointment to help soothe chafing, prickly heat and other minor skin irritations; and baby powder, made on a formula which contains no borax or other drying agents. The Dorothy Gray baby package is presented at a time when many people are seeking hospital gifts for mother and baby.

Goodrich Offers Hand Creams

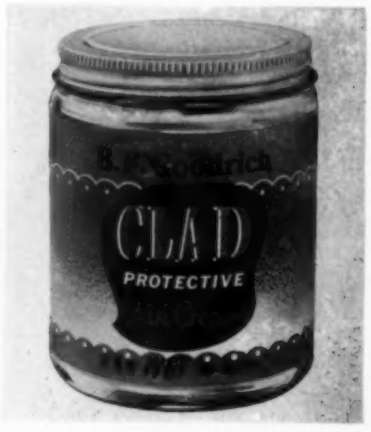
The B. F. Goodrich Co., in introducing, "Clad," a hand cream in two different types, one for use in work where the irritating element is a dry substance and one where the substance contains water. For instance, girls in some of the Goodrich departments who wash and dip metals in solvents, apply the wet variety of Clad before donning rubber gloves as an added protection. Girls handling the metals after they have been dipped and cured also use the same type of Clad before putting on canvas gloves. Girls handling stocks without gloves apply the dry Clad before starting to work, eliminating the drying effect on hands caused by soapstone and other pigments. The men too are using Clad before handling metals covered with oil and grease, and on all cement operations. With these and many other uses discovered for Clad in the industrial field, and with the promise of even more uses in the home, the product is being readied for the regular market and will be on sale in drug and department stores in Akron and elsewhere. Both types of the hand cream are in eight-ounce jars, the dry cream sells at 45 cents and the cream for wet use retails at 40 cents.

Vad Cosmetics

Vad Cosmetics entered the field with a "greaseless cream," a "regular cream" and a lipstick in January, 1943. Cod-liver, abundant in vitamins A and D (from which the name was derived), was blended with other basic ingredients in the Vad preparations. Rouge cream was added to the line in October 1943. These preparations served as an entering wedge and succeeded in getting distribution through department and drug stores. Vad has now rounded out the line with a creamed cleanser, "texture tint" face powder, foundation liquid and "Hand-Maid" a liquid hand preparation. Vad creamed cleanser, a cleansing cream containing cod-liver oil retails for $1.50; Vad regular treatment cream (50 per cent cod-liver oil), retail for $1.50 and $2.50, is a cream for average skins subject to dryness; greaseless cream retails for $1.50 and $2.50, is a protective and foundation; lipstick (23½ per cent cod-liver oil) sells for $1; rouge cream $1.25; face powder $1.50; foundation liquid $1.50 and "Hand-Maid" $1.

Leg Make-up Angles

The idea in cosmetic stockings these days seems to be to hit upon a new type and manufacturers are vying with one another in this direction. Last month we showed the Delettrez leg make-up mitt which is a leg make-up and applicator all in one. Incidentally, it seems to be doing all right in this highly competitive field. Since one of the main objections to the cosmetic stocking preparations is the messiness of application, if the mitt simplifies this, it might very well skyrocket to fame. That is the opinion of a buyer who sees in it possibilities for waterproofing one side of the mitt so that the hands and finger-



THE FRUITS OF LABOR

Among the most welcome by-products that grow out of our efforts to meet the diversified needs of our clients are the letters received expressing appreciation of the service we have rendered.

Within the files of Carr-Lowrey you will find a substantial yield of such paragraphs. Motivated entirely by feelings of gratitude, such letters are an encouraging endorsement of our belief in the idea that there are few problems which cannot be solved through patient, painstaking endeavor.

If you are a manufacturer of drugs, cosmetics, foods or household products, and if glass containers are included in your plans for harvesting a bumper crop of postwar customers, you may be interested to learn that another idea to which we are firmly addicted is this: That one little patch of performance is better than an entire acre of promise.

CARR-LOWREY GLASS CO.

Factory and Main Office: BALTIMORE, MD. *New York Office:* 500 FIFTH AVENUE *Chicago Office:* 1502 MERCHANDISE MART

nails will be free from the preparation itself.

Another new type of cosmetic stocking is Helena Rubinstein's "Minute Stocking Film," a smooth cream in consistency which is squeezed from a convenient tube as easily as tooth paste. Application is made on wet surface. After it is thoroughly dry, it is to be buffed with soft cloth or chamois. According to Helena Rubinstein, Minute Stocking Film is as easy to apply as any other leg make-up, and if directions are followed faithfully, the results will be satisfactory.

It is somewhat surprising that manufacturers have not taken better advantage of the grooming of the legs angle first, and have concentrated on the cosmetic stocking preparations. De-hairing and softening preparations are all important to the success of leg make-up. Women must be educated to give attention to the grooming of their legs if they are to expect results from the use of cosmetic stockings. Most of the difficulty and dissatisfaction has come from mis-use of the preparations rather than any shortcomings on the part of the products themselves.

Elisabeth Rae-Lamont

The Elisabeth Rae-Lamont line of cosmetics which originated a couple of years ago in a shop in Westchester and has since broadened its scope to some department store distribution has been acquired by Cosmetic Distributors, Inc., a holding company for the Vick Chemical Co. The line before Cosmetic Distributors purchased it consisted of several treatment items such as Skin Dew, a liquid cleanser, Face Rest, an herbal mask, dry skin cream, cleansing cream, and several make-up items such as rouge, lipstick, face powder, eye shadow, etc. Prominent in the line was "Sheertone," one of the early cosmetic stocking preparations. Under the new banner Sheertone is being featured. The other products in the line will be repackaged and a new merchandising policy will probably be adopted.

Incidently, another of the larger companies has also felt the expansion urge and is in the market to acquire cosmetic companies. As this is written they are reportedly making offers to two—one a medium-sized Coast outfit well-known nationally, and the other one of the two quite-large lines located in the East.

Dorothy Gray's War Worker Program

Employee councilors and personnel executives of war plants have been faced with a number of problems insofar as women war workers are concerned. Many women who went into war jobs inspired by patriotic fervor after December 7 have found that their jobs are hard work. Women become restless, bored and often leave their jobs because of this. Or, they tended toward absenteeism, taking time off to have their hair done and their nails manicured. More than a year ago, Dorothy Gray began to hear of these difficulties from personnel executives in war plants throughout the country, and after consultation and research, hit upon a plan which has proved to be of assistance in the solving of these problems. Dorothy Gray created "The American Design of Beauty" shows and gave them, entirely free of charge, to war plants.

The shows are two-hour stage presentations carefully produced and thoughtfully planned. They include a fashion show of clothes which are wise investments, sensible, well-planned wardrobe ideas which the war worker can adopt without wasteful spending of money. The show also includes a technicolor movie called "97 Salon Secrets for the Home" which instructs a woman in how to care for her skin and how to apply make-up correctly and in the most flattering fashion. There are demonstrations of exercises designed to improve the figure and counteract the special problems which arise from strenuous or tedious work. The shows themselves, however, are merely preludes to the actual good grooming work. At the conclusion of these presentations, a trained Dorothy Gray consultant goes to live near the war plant, often in the government housing project where the war workers make their homes. She conducts afternoon and evening classes, teaching groups of about thirty women how to care for their skins, concentrating on protective make-up, too, how to arrange hair at home, give manicures, rearrange health habits and remake wardrobes, thus cutting down on time off from the job, preventing waste of money and preparing them for the future. Again, there is no charge to employees, nor is any attempt made to sell Dorothy Gray products at the shows or in the classes.

For more than a year, these presentations have been sponsored by Dorothy Gray. They are done only at the request of personnel executives and housing authority officials.

Fancy Free

Seron Perfumers, New York, is planning a new perfume line called "Fancy Free" which consists of two perfumes, Fancy Free by day, and Fancy Free by night, (3/8 ounce at $3.50—one size only), Fancy Free eau de toilette, four ounces for $3; dusting powder, seven ounces, $1.50. There is a gift ensemble holding a bottle of eau de toilette and a box of dusting powder to retail at $4.50, and a perfume duet, one each of the perfumes to sell for $7.00. There will be limited distribution probably through drug and department stores. The daytime fragrance is a light, fresh odor, and the night perfume, a heady exotic scent. The unusual little bottles stand in a satin cushion, white for the day perfume with a red heart shaped hat pin in the cushion, and a red cushion for the night fragrance with a white heart-shaped pin. The motif on the boxes is a gay, outdoors one reproduced in eight colors.

The pricing of the line appears to be an attempt to straddle between the popular priced field and the higher brackets, although the fact that only one size of the perfume is available at $3.50 places it in the popular price bracket, even though that amount buys only three-eighths of an ounce.

ROUGE,
PERFUME
and
MAKE-UP BOXES

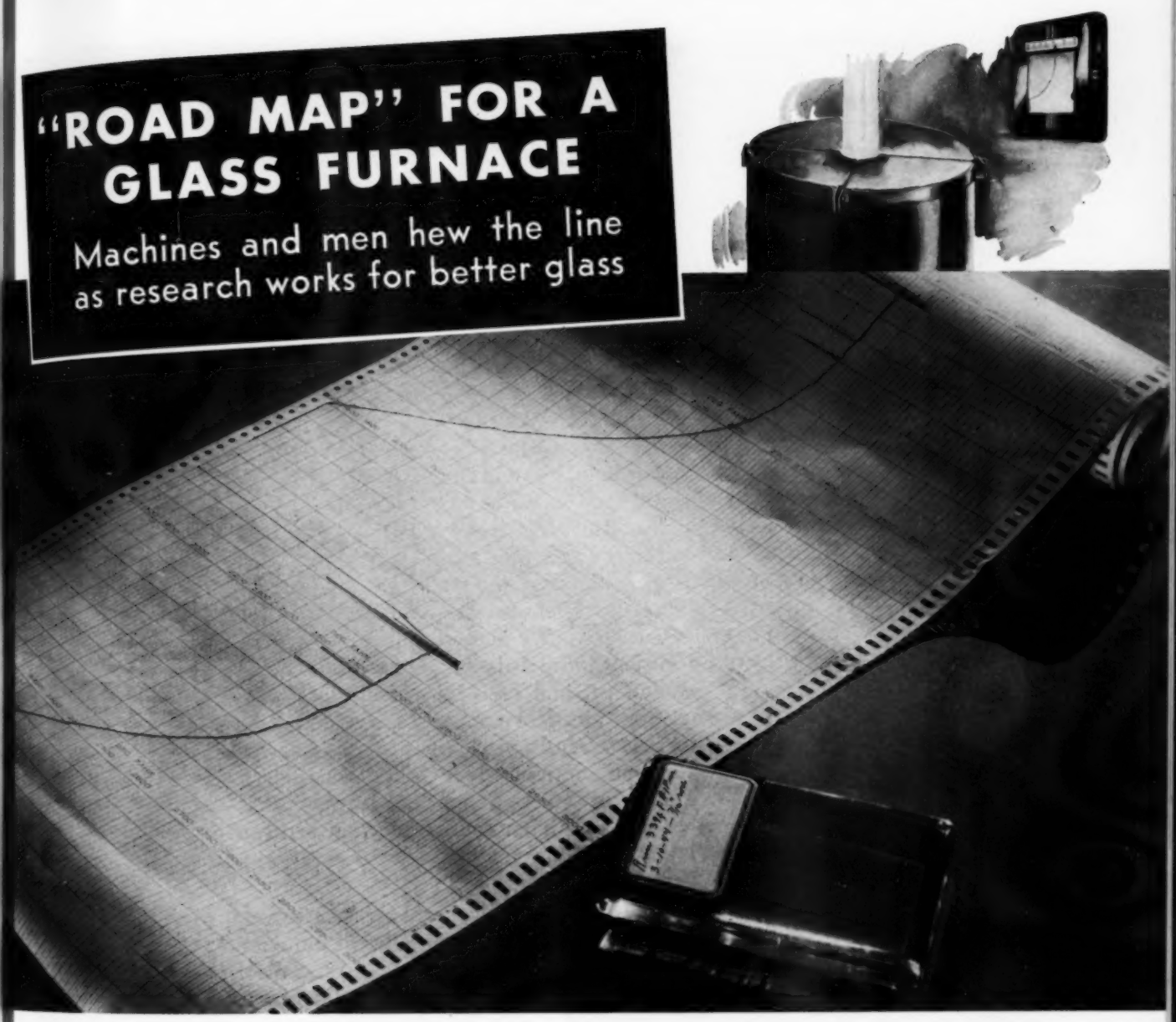
ILLUSTRATIONS ACTUAL SIZE

WIRE OR WRITE
FOR SAMPLES

HARRY BRODER
AND ASSOCIATES
5 EAST 47th STREET
NEW YORK 17, N. Y.
PLAZA 8-0520

"ROAD MAP" FOR A GLASS FURNACE

Machines and men hew the line as research works for better glass



THE temperature in Armstrong's experimental glass furnaces travels a long road . . . and must be at a certain place at a certain time. In the melting of an experimental batch, it rises from room temperature to a predetermined upper limit—sometimes more than 2600° F.

A glass chemist often has a series of "runs" that he wants heated at exactly the same rate. This means that the furnace must retrace identically every step of its 2600-degree journey many times. For the Armstrong chemist, this feat is not so difficult as it sounds. He simply chooses a "road" for the furnace!

This chart indicates where the temperature of the furnace should be every minute of its heating schedule. The chart is placed in the furnace temperature recorder, and the furnace temperature is regulated so that it follows the route exactly. So precisely is its rise controlled that the temperature may be steered over the same path any number of times without varying more than a few degrees from its "itinerary" at any time!

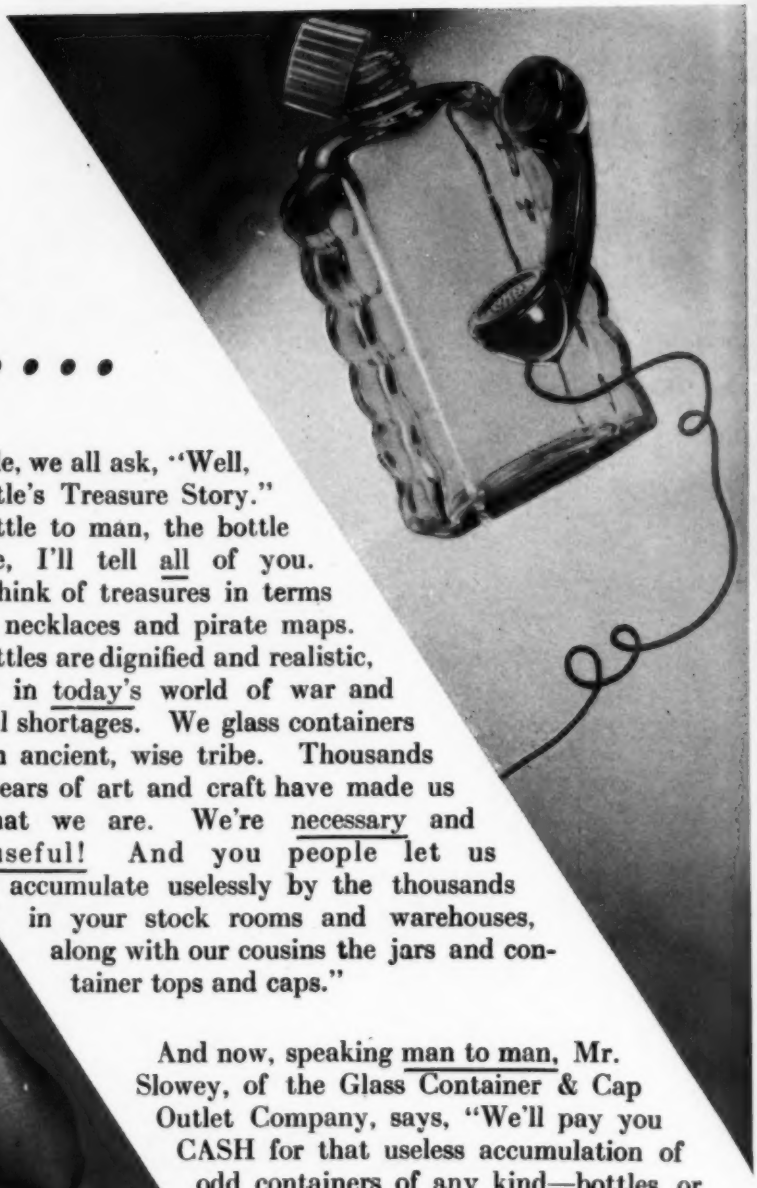
Armstrong's chemists, physicists, and engineers employ many other equally precise controls in their glass laboratories. Their experience and skill, plus the aid of the latest in equipment, have been major factors in establishing Armstrong's reputation for top-quality glass.

Many interesting articles about the trained men and women who make fine glass are contained in Armstrong's booklet, "Men and Glass." For your free copy, write now to Armstrong Cork Company, Glass and Closure Div., 3806 Prince Street, Lancaster, Pa.

ARMSTRONG'S GLASS

and **ARMSTRONG'S CLOSURES**

The Bottle's Treasure Story . . . . . .



Speaking to the bottle, we all ask, "Well, what is the bottle's Treasure Story." And speaking bottle to man, the bottle answers, "Sure, I'll tell all of you. Most people think of treasures in terms of gold and necklaces and pirate maps. But we bottles are dignified and realistic, and live in today's world of war and material shortages. We glass containers are an ancient, wise tribe. Thousands of years of art and craft have made us what we are. We're necessary and useful! And you people let us accumulate uselessly by the thousands in your stock rooms and warehouses, along with our cousins the jars and container tops and caps."

And now, speaking man to man, Mr. Slowey, of the Glass Container & Cap Outlet Company, says, "We'll pay you CASH for that useless accumulation of odd containers of any kind—bottles or otherwise—which clutter up stock rooms and warehouses. Size or Quantity do not matter. Same offer follows for caps. Any kind of caps."

Call us for a quotation on your "Treasure" of bottles, odd containers and bottle caps today!

GLASS CONTAINER & CAP OUTLET CO.

876 Broadway *New York 3, New York*

PHARMACEUTICALS • BANDAGES, TAPE, ETC. • TOOTH POWDER, ETC. • BELTS (CLOTHING ACCESSORIES) • FILM (CIVILIAN) • TOBACCO • BRUSHES (TOOTH & OTHER) • RUBBER GOODS • DEODORANTS • HAIR TONICS • RAZOR BLADES • BOUILLON CUBES • PREPARED FOODS • CANDY • COCOA • GUM • COFFEE • TEA • DRUGS • PEANUTS • VITAMINS • COSMETICS

A Balance...

DEMAND AND SUPPLY . . .

Fairness in distribution—plentiful reserves for Government needs — adequate essential civilian supplies—we are committed to seeing the War through on this basis.

Such a plan for paperboard needs cooperation to succeed. So let's do a constructive job—your company and every company—from now to the end.

Where the choice is quality boxboard—make it Ridgelo as you have in the past and will in the future—

DO YOUR PART IN THE WASTE PAPER DRIVE

Ridgelo
CLAY COATED
BOXBOARDS

MADE AT RIDGEFIELD, N. J.
BY LOWE PAPER COMPANY

Representatives: Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit
Gordon Murphy and Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Son, Inc., Philadelphia

MEYERCORD DECALCOMANIA

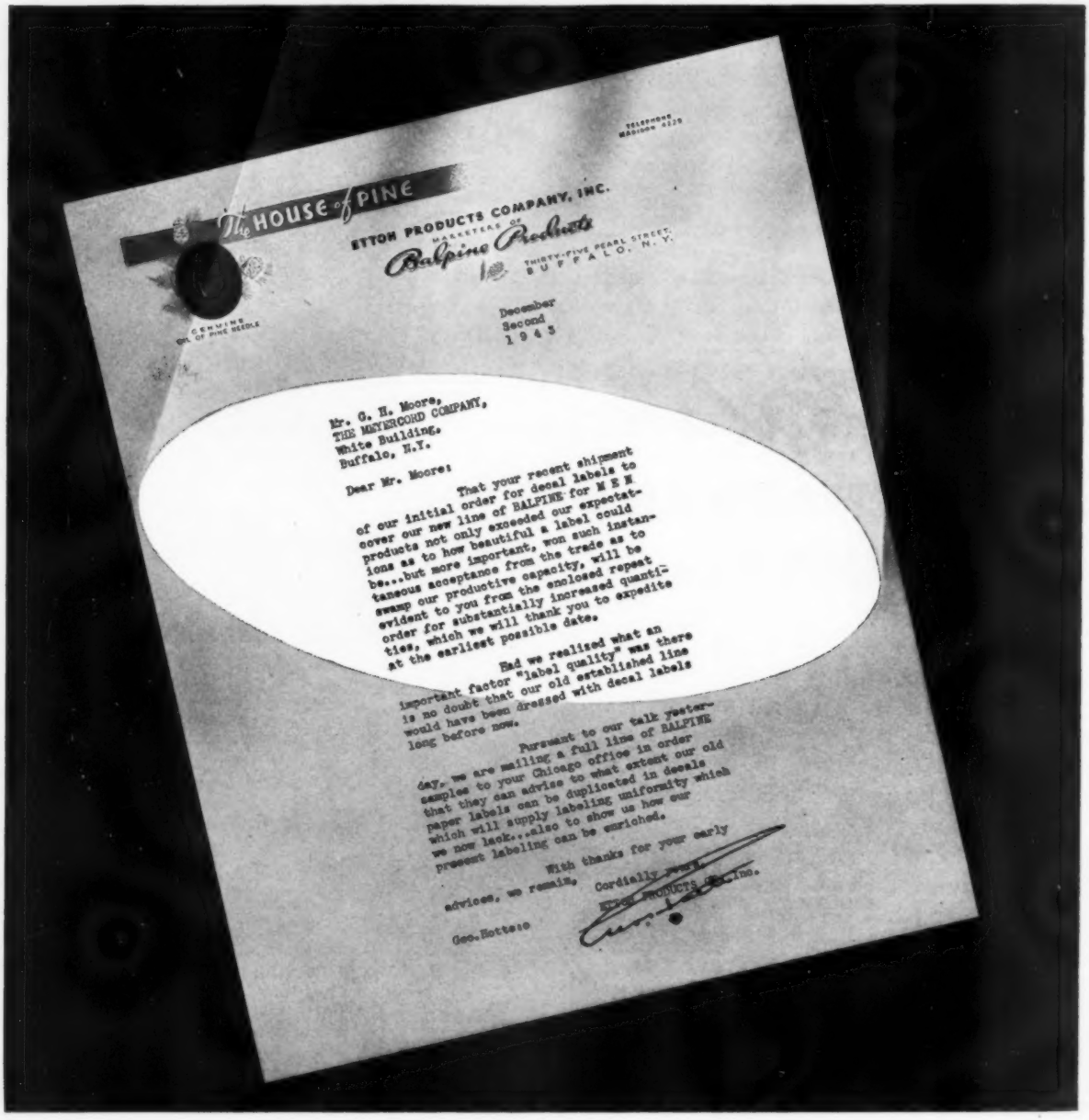
Stars in Sales Success Story!

"Your decal labels . . . not only exceeded our expectations as to how beautiful a label could be . . . but more important, won such instantaneous acceptance from the trade as to swamp our productive capacity."

This excerpt from a letter to The Meyercord Co. from the Ettoh Products Company, Inc. is the "happy ending"—or perhaps it would be more correct to say the "happy beginning"—of a true sales success story that should be of vital interest to every manufacturer and distributor of packaged products.

The story began when the Ettoh Products Company, marketers of Balpine toiletries for

Read this letter from Mr. George Hotte for the complete story of Balpine Products' success with Meyercord Decals.



The HOUSE of PINE

ETTOH PRODUCTS COMPANY, INC.
MARKETERS OF
Balpine Products
THIRTY-FIVE PEARL STREET
BUFFALO, N. Y.

GENUINE OIL OF PINE NEEDLE

December
Second
1 9 4 5

Mr. G. H. Moore,
THE MEYERCORD COMPANY,
White Building,
Buffalo, N.Y.

Dear Mr. Moore:

That your recent shipment of our initial order for decal labels to cover our new line of BALPINE for M E N products not only exceeded our expectations as to how beautiful a label could be...but more important, won such instantaneous acceptance from the trade as to swamp our productive capacity, will be evident to you from the enclosed repeat order for substantially increased quantities, which we will thank you to expedite at the earliest possible date.

Had we realized what an important factor "label quality" was there is no doubt that our old established line would have been dressed with decal labels long before now.

Pursuant to our talk yesterday, we are mailing a full line of BALPINE samples to your Chicago office in order that they can advise to what extent our old paper labels can be duplicated in decals which will supply labeling uniformity which we now lack...also to show us how our present labeling can be enriched.

With thanks for your early advices, we remain, Cordially yours,

ETTOH PRODUCTS, Inc.

Geo. Hotte:o

These five beautiful Balpine packages vividly illustrate the beauty, eye appeal and effectiveness of Meyercord Decals for product identification and decoration.

men, was confronted with the problem of giving their products new and modern identification. Recognizing that eye appeal means *buy* appeal—that it's *personality* in packages, as in people, that's important—they set out to obtain a design that would have outstanding and *lasting* beauty. Because of the nature of the products, the new labels had to be water-proof and resistant to alcohol and acids. Paper was impractical. Other materials proved equally unsatisfactory. Finally Meyercord Decalcomania engineers were called in—and the result was a Decal identification program that produced the sales story with the "happy beginning" quoted above.

Alert marketing executives, constantly on the look-out for new ideas that will increase sales and cut costs, will doubtlessly want to know *why* Meyercord Decals are such a successful—and increasingly popular—method of product identification and decoration. Here are the main reasons:

1. For beautiful appearance Meyercord Decals are the nearest approach to hand painting. They can be produced in any design, size or color.

2. They can be applied at production line speed.

3. They are inexpensive to use — both as to material cost and application.

4. They're durable, do not tear or stain and can be made resistant to acid, alcohol, alkali.

5. Meyercord Decals can be applied with equal effectiveness on glass, wood, plastic, pottery, metal—on smooth or crinkled, flat or curved surfaces. For special products or finishes Meyercord's technical staff creates special production line application techniques.

6. They're washable, do not collect dirt and keep your product name fresh and bright.

7. They're permanent "silent salesmen"—provide life-of-the-product decoration, identification and advertising.

Billions—yes, actually *billions*—of Meyercord Decals are in use throughout the world. Meyercord's designing and technical staffs are at your service, too—no obligation. For complete information on this modern method of product identification and its application to *your* product, write Department 14-6.

THE MEYERCORD CO.

World's Leading Decalcomania Mfr.

5323 West Lake Street, Chicago 44, Illinois

Foresight in PACKAGING

calls for Clearsite* CONTAINERS

—because they are SHATTER-PROOF, SEAMLESS Clearsite* Vials

Clearsite is best for all Types of "pocket-or-purse" products

Its RESILIENCE protects the contents!

There's an unquestioned VALUE in Clearsite containers. To begin with, they have eye-appeal. The lustre of clear transparency, plus the color of labels processed in production gives Clearsite vials a distinction that adds prestige to your products. They have more positive protection, because they resist breakage; they're *shatterproof* and *seamless!*

Clearsite values are clearly demonstrated by the ever-growing number of manufacturers using these *modern* containers.

Our staff of Packaging Engineers are at your Service—without obligation.

* Registered U. S. Pat. Off.

CELLUPLASTIC CORPORATION

FIRST IN CELLUPLASTICS

HYCOLOID-CLEARSITE

60 AVENUE L NEWARK, N. J.

IT'S OUR BUSINESS

TO HELP YOUR BUSINESS

Our place in American industry is to supply closures to you who pack the foods and other products needed by our Armed Forces and civilian population. That is why it is our business to help your business in every way we can.

Our experience of more than fifty years in manufacturing metal closures has given us a vast fund of specialized knowledge. It is always at your disposal to help you solve difficult sealing problems. From this experience have grown also many improvements in closures and in manufacturing techniques which today are helping to speed production, conserve critical materials and maintain high standards of excellence under wartime conditions. In war, as in peace, Crown continues to be "sealing headquarters" for users of metal closures.

CROWN CORK & SEAL COMPANY

CLOSURE DIVISION • BALTIMORE-3, MARYLAND

WORLD'S LARGEST MAKERS OF METAL CLOSURES

CROWN CLOSURES

Crown's Wartime Policy: To supply closures, containers and services for packaging foods, beverages, chemicals, etc., needed by civilians and the armed forces. To build an ever-increasing volume of vitally needed weapons of war for our fighting men.

BRIDGEPORT...

For the past two years our facilities have been devoted almost exclusively to the production of war materials. We have been fortunate, in that we have been able to handle this work on the same equipment used for our regular peace time products, and, consequently, when material again becomes available for lipstick containers, vanity cases and other metal cosmetic items we will be prepared to start producing our regular line immediately. If you too are planning your post war program, we will be glad to assist you.

THE *BRIDGEPORT* METAL GOODS MFG. CO.

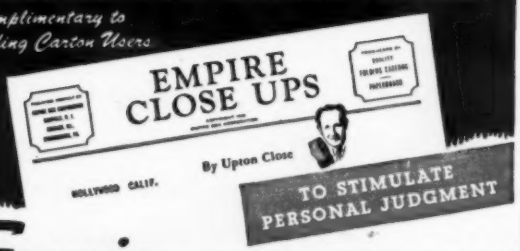
Established 1909

BRIDGEPORT *PHONE: BRIDGEPORT 3-3125 CONNECTICUT

VANITY CASES • ROUGE CASES • PASTE ROUGE CONTAINERS • LIPSTICK HOLDERS (ALL TYPES) • POWDER BOX COVERS • EYEBROW PENCIL HOLDERS • BOTTLE CAPS • JAR CAPS • METAL NOVELTIES TO ORDER

A MONTHLY NEWS ANALYSIS-FORECAST

Complimentary to Folding Carton Users



Empire BOX CORPORATION

Offices—Garfield, N. J., Palmolive Bldg., Chicago
Plants—Garfield, N. J., South Bend, Ind. Mills—Stroudsburg, Pa.

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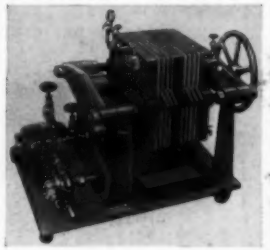

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NEWS

Dr. Dunbar Heads FDA

Dr. P. B. Dunbar has been appointed Commissioner of Food and Drugs, succeeding Walter G. Campbell who retired April 29. Dr. Dunbar who has been associate commissioner for some time, joined the Food and Drug Administration in 1907, only a few weeks after Mr. Campbell was made commissioner.

DR. PAUL B. DUNBAR

Charles W. Crawford, assistant commissioner, will continue in that post, taking over some of the duties performed by Dr. Dunbar as associate commissioner. Mr. Crawford has been with the Food and Drug Administration in Washington since 1918 and previous to that served in both the New Orleans and Chicago stations.

Remington Medal to Dr. Kendig

The committee on award of the New York branch of the American Pharmaceutical Association has announced that the 1944 Remington honor medal will be presented to Dr. H. Evert Kendig, dean of the Temple University School of Pharmacy, in recognition of his work leading to the establishment of a Pharmacy Corps in the United States Army.

Harker Returns to Monsanto

Harvey M. Harker who has been serving as deputy chief of the Aromatics and Intermediates Section of the WPB Chemicals Bureau, has resigned and has returned to Monsanto Chemical Co. L. A. Schleuter, formerly chief of the coal-tar unit and administrator of order M-27, succeeds him.

Mr. Harker went to the Chemicals Bureau in May 1942 and was attached to the intermediates unit of which he later became chief. He later became deputy chief of the aromatics and intermediates section.

Dr. Barlow Resigns from Winthrop

O. W. Barlow, M.D., Ph.D., formerly chief pharmacologist of the Winthrop Chemical Co., Inc., with headquarters at the company's plant and laboratories, Rensselaer, N. Y., has resigned to accept another position, it has been announced by Dr. Theodore G. Klumpp, president.

Dr. Barlow first became associated with Winthrop in 1936. He had previously been associate professor in the department of pharmacology at Western Reserve University, Cleveland.

A testimonial dinner in his honor was given at the De Witt Clinton Hotel, Albany, May 11, by Dr. Maurice Tainter, director of research, Dr. A. E. Sherndal, vice-president and plant manager, and other of his associates.

McKeen and Timblin on Pfizer Board

John E. McKeen and Louis M. Timblin have been elected members of the board of directors of Charles Pfizer & Co., New York. Other officers reelected were: George A. Anderson, John L. Smith, John J. Powers, Albert A. Teeter, Albert R. Palmer, Elmer C. Otto, Maynard E. Dimone and Philip A. Rising.

Dr. McDonnell Controls Penicillin

Dr. John N. McDonnell, assistant professor in pharmacy at the Philadelphia College of Pharmacy and Science, who has been chief of drug research for War Production Board's Chemicals Bureau since 1941, has been made director of the newly-formed Office of Civilian Penicillin Distribution.

WPB's intensive industrial program has increased production of the drug so that a portion of current production can now be set aside for the treatment of the most needy cases in civilian medical practice. Initial distribution will be through the nation's hospitals, and in conformity with current medical opinion as to use.

The Office of Civilian Penicillin Distribution under the direction of Dr. McDonnell has been established in Chicago. He will be assisted by Dr. Chester S. Keefer of Boston, serving as medical advisor. Dr. Keefer is in charge of chemotherapeutic research for the National Research Council and the

DR. JOHN McDONNELL

Office of Scientific Research and Development in Washington.

Dr. McDonnell was recently appointed United States staff representative on the Medical Supplies Committee of the Combined Production and Resources Board in Washington. This body, together with the WPB Bureau Requirements Committee on Drugs of which he is vice-chairman, allocated production and supplies of critical drugs to all of the United Nations for military and civilian use. He will continue in these WPB activities during the period of the new plan's operation.

Son to Dr. and Mrs. Beller

Dr. and Mrs. Arnold Beller are receiving congratulations on the birth of a son. Dr. Beller is vice-president of Centflor Manufacturing Company, New York.

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An economical synthetic you can count upon for uniform results

You can be sure of giving your products that "just right" wintergreen flavor *every time* when you depend upon Methyl Salicylate Monsanto.

Methyl Salicylate Monsanto—synthetic oil of wintergreen—is uniform and high in purity. A given quantity always imparts the same flavoring strength, simplifying your formulations. Methyl Salicylate Monsanto contains no harsh ingredients.

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Unless you are a regular Monsanto customer, we may not be able to supply you with Methyl Salicylate in commercial quantities. We shall be pleased, however, to send you technical details or samples for your experimentation. Please address your request to: MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 1700 South Second Street, St. Louis 4, Missouri.

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Bannon Appointed by Grove

H. J. Bannon has been appointed scientific director of Grove Laboratories, Inc., St. Louis. In his new capacity he will be in charge of research and product development, control of raw materials and finished products, and will act as

H. J. BANNON

scientific advisor on all advertising copy. Prior to joining Grove Laboratories, in 1935, Mr. Bannon was affiliated with McKesson & Robbins at Bridgeport as a research chemist, and later with Strong-Cobb, Cleveland, as chief chemist.

Palmer on Association Board

Carleton H. Palmer, chairman of the board of E. R. Squibb & Sons, was elected a member of the board of directors of the Commerce and Industry Association of New York at its forty-seventh annual meeting.

Dr. Russe Wins Shipman Medal

Dr. Frederick W. Russe, director and vice-president of Mallinckrodt Chemical Works, St. Louis, was awarded the J. Shipman Gold Medal for distinguished

DR. F. W. RUSSE

service to the advancement of purchasing, at the annual dinner meeting of the National Association of Purchasing Agents at the Waldorf-Astoria, New York, May 30.

Harold Moore Joins Lehn & Fink

Harold E. Moore, former executive vice-president and general manager of Brunswig Drug Co., has been employed by Lehn & Fink Products Corp., Bloomfield, N. J., as sales manager for the western division. Mr. Moore will supervise the activities of all divisional managers and their salesmen. This operation covers the western states and portions of Arkansas, Missouri and Iowa. He will make his headquarters in Los Angeles.

Martin Named on Tylon Board

Harry Martin has been made a member of the board of directors of Tylon Products, Inc., New York, maker of Tylon cold permanent waves and beauty salon aids. Mr. Martin is founder and president of Martin Laboratories, maker of Tyo.

Schultz Heads Purepac Sales

Harry Schultz, formerly sales promotion manager for the Northwestern Drug Co. has been appointed general sales manager of the Purepac Corp. with headquarters in Chicago. According to Arthur J. Kinsman, president of the corporation, about 81 per cent of all independent service wholesale druggists and nearly 35,000 drug stores now carry Purepac products.

Forsman Chairman

Peter L. Forsman of the C. H. Forsman Co., New York, was tournament chairman for the New York Red Cross open golf tournament held June 12-18 at the Wykagyl Country Club, New Rochelle, N. Y.

Sharp & Dohme Advances Dr. Arnow

Appointment of Dr. L. Earle Arnow as director of research has been announced by Dr. W. A. Feirer, vice-president of Sharp & Dohme. Dr. Arnow has been directing the department of biochemistry in the medical research laboratories of Sharp & Dohme for the past two years. In his new post, he succeeds Dr. Arnold D. Welch who has been made professor of pharmacology in the school of medicine of Western Reserve University, Cleveland.

Dr. Arnow was graduated as a pharmacist with a B. S. degree from the University of Florida in 1930. He received his Ph.D. from the University of Minnesota in 1934 and his M. D. from the University of Minnesota Medical School in 1940.

Dooley Joins Owens-Illinois

Charles M. Dooley has joined the staff of the merchandising division of Owens-Illinois Glass Co., Toledo. He will report to H. A. Trumbull, manager of merchandising for the company's Glass Container Division.

CHARLES M. DOOLEY

Gauer Recovering Rapidly

Joseph A. Gauer, president of the Chicago Perfumery, Soap and Extract Association, whose illness appeared to be very serious is making astonishing progress and it is likely that Mr. Gauer will be up and about much sooner than had been expected.

Sam Klein—Calco Western Mgr.

Sam Klein has been appointed western sales manager for Calco Chemical Division, American Cyanamid Co. He has been active in dyestuffs since 1907.

Dr. Bird Joins Lederle

Dr. John C. Bird has been appointed director of development research for Lederle Laboratories, Inc., New York and Pearl River. This appointment

JOHN C. BIRD

follows Dr. Bird's resignation from the post of vice-presiden and technical director of the Vitamin Division of Vick Chemical Co., to which he was named in 1941.

Magnus Heads DVA Service Fund

Percy C. Magnus, president of Magnus, Mabee & Reynard, Inc., New York, has been appointed general chairman of the Disabled American Veterans National Service Fund, which has established campaign headquarters in the

PERCY C. MAGNUS

Chrysler Building, New York. The Disabled American Veterans, organized in 1920, is a nationwide organization with national headquarters in Cincinnati, and a National Service Bureau in Washington.

College Courses for Service Men

A plan which provides four-year college courses, income for that period and a secured future to honorably discharged service men was announced following a meeting of the board of directors of the National Chain Drug Store Association at the Vanderbilt Hotel, New York.

NATE SHAPERO

The plan, developed and sponsored by Nate Shapero, president of Cunningham Drug Stores of Detroit, will be put into effect immediately. The only requirements are that applicants must be American citizens, honorably discharged and graduates of accredited high schools. Facilities have been set up to handle applications at the headquarters of Cunningham Drug Stores in Detroit.

Dr. Peterson Joins Standard Brands

Dr. Joel B. Peterson has joined the applied research department of Standard Brands Inc. as technical consultant for pharmaceuticals. He was formerly associated with White Laboratories, Inc., and Frederick Stearns & Co.

Ort Joins American Pharmaceutical

John M. Ort has joined the staff of American Pharmaceutical Co., New York, as director of laboratories. Dr. Ort was formerly with the research and development laboratories of E. R. Squibb & Sons.

Reynolds with Marly

John R. Nazzaro, president of Marly Perfumes, Inc., New York, has announced the appointment of James E. Reynolds as sales manager. Mr. Reynolds was formerly associated with Coty for fourteen years, and with Elizabeth Arden for three years.

McKinney Resigns

William McKinney, president of Scott & Bowne, J. C. Eno, Inc., County Perfumery Co., Inc., and other subsidiaries of Beecham Pills, Ltd., has resigned to devote all of his time to E. W. Bliss Co., Brooklyn, manufacturer of sheet metal machinery.

Hompe and Jordan on SKF Board

Robert W. Hompe and Mahlon K. Jordan have been elected members of the board of directors of Smith, Kline & French Laboratories, Philadelphia. Mr. Hompe who has been plant manager since 1938, was formerly vice-president of Strong, Cobb & Co., Cleveland. Mr. Jordan has been associated with Smith, Kline & French since his graduation from the University of North Carolina in 1935. He is now vice-president of California Milk Products Co., Gustine Creamery and Avoset, Inc., Smith, Kline & French subsidiaries.

Esme of Paris

Esme Davis, New York perfumer, has written her autobiography which has just been published by D. Appleton Century. The daughter of a Spanish opera singer and a Canadian business man, she was performing with a famous Russian troupe of child acrobats in the great European circuses when she was six years old. She has known many of the world's notables, and has won prizes with her painting. She has been a musician, animal trainer, night club operator, snake-charmer, ballet choreographer—and more.

Continental Can Advances Murray

W. H. Funderburg, vice-president in charge of sales, Continental Can Co., Inc., has announced the appointment of Walter P. Murray as general manager, general line sales. Mr. Murray, a member of the Continental organization since

W. P. MURRAY

1928, and formerly a divisional sales manager will direct general line sales activities on a nation-wide basis.

Oliver G. Jakob has been appointed manager of Continental's newly created plastics division. He has been with Continental since 1924, most recently as a district sales manager.

Dr. Davidson Heads C. & C. Chemicals

Dr. Joseph G. Davidson has been elected president of Carbide and Carbon Chemicals Corp. and Carbide and Car-

DR. JOSEPH G. DAVIDSON

bon Chemicals, Ltd., units of the Union Carbide and Carbon Corp. He participated in the early work in synthetic organic chemistry which led to the foundation of Carbide and Carbon Chemicals Corp. and has served the company in technical and executive capacities since its format on. He has been vice-president in charge of sales for the last twelve years.

Companies

Kimble Glass Awarded "E"

The Kimble Glass Co., Vineland, N. J., which has been supplying the medical services of both Army and Navy with hospital glassware, ampuls and other special containers and apparatus, was given the Army-Navy "E" at ceremonies held May 26.

Von Hofe Heads N. J. Machine

George von Hofe has been elected president of the New Jersey Machine Corp., Hoboken, N. J., succeeding Carl H. Lambelet who has been president since March 1936. Mr. von Hofe had been vice-president in charge of production since 1936 and prior to that time had been assistant to Paul Fliescher, former president. All other officers of the company were re-elected. Mr. Lambelet's resignation which took effect June 1, enables him to take a brief rest prior to assuming an altogether new post, details of which have not been made public.

Pfizer Bowlers Top League

The Pfizer Bowling Team won the 1943-44 championship of the Drug Trade Bowling League. Following the Chas. Pfizer & Co. team in order of their standing were: Mallinckrodt Chemical Works, E. R. Squibb & Sons, Spice Trades, Electro-Chemical DuP., Dodge & Olcott Co., Fritzsche Brothers Co., and Carbide & Carbon Chemicals Corp.

Continental Can Buys Plastic Molder

Continental Can Co., has acquired the Reynolds Molded Plastics division of Reynolds Spring Co., said to be the third largest custom plastics molding concern in the United States.

Continental entered the plastics field in 1943 through the acquisition of a substantial interest in Marco Chemicals, Inc., and is now producing in Chicago and Jersey City a plastic laminate, Continental Marco-Board, for military aircraft use.

The Reynolds Molded Plastics division which now produces transparent plastic turret enclosures as well as numerous other parts for bomber and fighter aircraft and in peacetime served the automotive, refrigeration, household appliance and electric appliance industries, has complete design and engineering facilities for developing industrial plastics applications, Mr. Conway states.

There will be no change in the personnel or policies of the new division nor in the location of the plant at Cambridge, Ohio, within overnight delivery distance of New York, Chicago, Detroit, and Cincinnati. It employs 450 people.

Dr. Katz Shows Movies

At a dinner given by Florasynth Laboratories, Inc., in San Diego, Dr. Alexander Katz, president of the company showed motion pictures of the New York plant, and others taken in Mexico where the company cures its own vanilla beans.

The Pfizer Bowling Team: Carl Schratzmeier, captain, Tony D'Andoni, Jim Chewins, Adam Chetel, manager, Ray Heffernan, Paul Maidl and Jim Stevens.

Dunhill Forms New Company

Dunhill International has announced, as part of its post-war plan, the organization of a new firm, Alfred Dunhill Men's Toiletries, Ltd., under the management of the executives of Alfred Dunhill of London, Inc. These include: A. L. Ogden, chairman of the board; Arthur Mainzer, president; Sydney Ballinger, vice-president; Walter Bonwit, treasurer. Alfred Dunhill Men's Toiletries, Ltd., will have its headquarters at 660 Fifth Ave., New York, and will have retail distribution throughout the country.

Orbis Buys Catalin Plant

In anticipation of the post-war demand for pharmaceutical and aromatic chemicals, Charles J. A. Fitzsimmons, president of Orbis Products Corp., New York, has announced the purchase of the entire chemical plant of the Catalin Corp. of America, located at Matawan, N. J. This plant comprises 7½ acres of land upon which are 18 buildings of various sizes housing modern chemical equipment.

As in the past, the Orbis plant in Newark, will be devoted to the production of essential oil derivatives, compounds, insecticides, and to the grinding of water soluble gums.

Owens-Illinois to Erect Plant

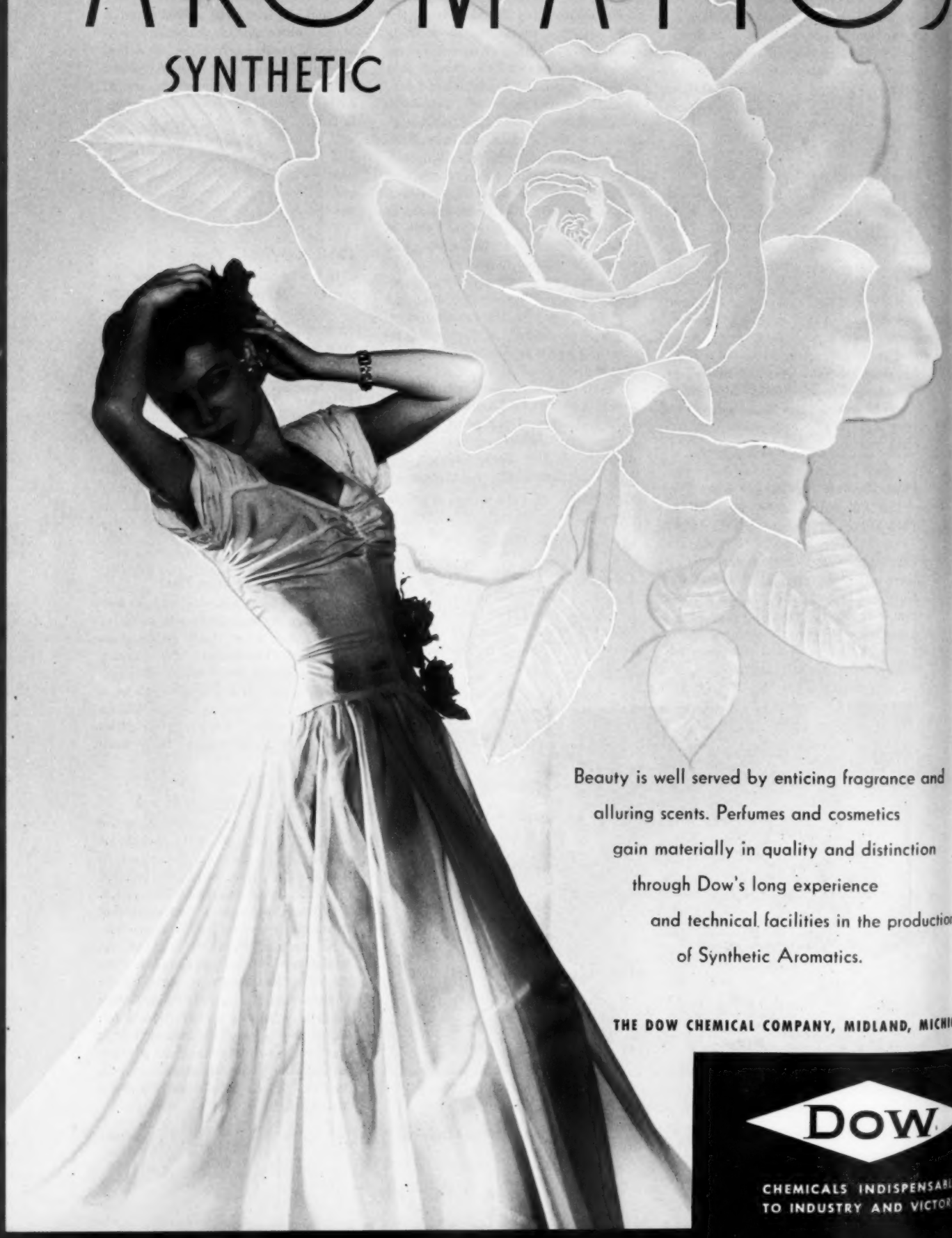
Owens-Illinois Glass Co. has purchased an 80-acre plant site south of Atlanta, Ga., where it will construct its 25th plant. The company's engineering department has already completed preliminary plans for construction of a glass container factory which will be started as soon as problems of priorities and other preliminaries have been solved.

Calco Offices in Historic House

The historic Van Horne House on the hill across the road from the parking lot at the Calco Chemical Co. plant in Bound Brook, N. J., has been converted into temporary wartime office space. The house which was famous during Revolutionary times for the lavish hospitality extended to both American and British officers has been restored. The main floor has been taken over by the pharmaceutical sales and administrative department, under the direction of Dr. C. M. Bigelow and the second floor is now occupied by dye and intermediate export sales personnel including J. C. Martin, J. L. Clark and Victoria Mazzucco.

AROMATICS

SYNTHETIC



Beauty is well served by enticing fragrance and alluring scents. Perfumes and cosmetics gain materially in quality and distinction through Dow's long experience and technical facilities in the production of Synthetic Aromatics.

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CHEMICALS INDISPENSABLE TO INDUSTRY AND VICTORY

Sterling Drug in South America

Three years ago the United States Government investigated the relationship between Sterling Drug Inc. and I. G. Farbenindustrie A. G. As a result, Sterling was completely dissociated from I. G. Farben, and entered into active competition with the German company for the drug markets of Latin America while relinquishing its rights in German-owned trade-marks.

Now, at the suggestion of the government and with the approval of the Interdepartmental Committee, representing the Departments of State, Treasury, and Justice, Sterling Drug Inc. has filed application in a number of the other American republics to register in each some 120 trade-marks for medicines and pharmaceutical products which were once owned by German nationals and the registration of which had been cancelled.

James Hill, Jr., president of Sterling Drug Inc., stated "After the trade-marks are registered in each of the countries in the name of Sterling or its appropriate subsidiary or affiliate such use of them will be made as to keep them alive and valid, thus preventing them from falling into the hands of the Germans. German economic penetration in Latin-America after the war, in the drug field, will have to depend upon new trade-marks which are not presently known to the medical profession or to the public."

Le Sonier Opens New Factory

Due to the large increases in business, Le Sonier, Inc., has opened an additional factory in Troy, N. Y.

Heyden Government Plant Increased

The contract between Heyden Chemical Corp., New York, and the Defense Plant Corporation has been increased. A plant near Princeton, N. J., valued at $75,000, title to which the Defense Plant retains, will be operated by Heyden. This now brings Heyden's overall commitment to approximately $2,350,000.

Continental Can Group Insurance

Carle C. Conway, president and chairman of the board of Continental Can Co., has announced that the directors have approved a group insurance plan which not only doubles the amount of life insurance formerly made available to employees, but also adds completely new protection to cover sickness and accidents, hospital confinement for both employees and dependents, and surgical operations for employees.

Corn Facts and Figures

Corn Research Foundation, New York, has brought out an interesting booklet, "Corn Facts and Figures." It points out that many millions of bushels of corn are milled annually to go into production of war necessities. Such major industries as textiles, paper and paper products, metals, adhesives, fibreboard containers, and drugs and pharmaceuticals require more than thirty million bushels of corn a year in their operation. The booklet has been published to give an over-all picture of the importance of corn to American agriculture, marketing agencies, industries, and the war effort. Copies are available upon request.

Essential Oils Industry Advisory Committee: Gerard J. Danco, R. R. Webb, Walter H. Jelly, H. P. Wesemann, R. M. Stevenson, A. L. Kalish, Miss Margaret Pittman, George H. McGlynn, Dr. H. J. Kohl, F. T. Dodge, F. G. Buehler, and F. W. Heine.

Merck Warehouse in Los Angeles

Merck & Co., Rahway, N. J., has announced the opening of a west coast warehouse in Los Angeles, for the service of customers in Washington, Oregon, California, Nevada, Montana, Idaho, Utah and Arizona.

Stocks of medicinal, nutritional, analytical, industrial, and photographic chemicals have been established at the Los Angeles warehouse which is located at 1855 Industrial St. The western division sales office will continue at 129 West Second St.

G. A. Beuchamp, Jr. is western division sales manager, and J. A. Veazey, formerly of the company's St. Louis branch, is manager of the new warehouse.

Glickman Moves Offices

The laboratories and offices of Chas. S. Glickman and Associates, consulting chemists, have been moved to 39 West 38 St., New York. Mr. Glickman, writer on waxes, synthetic esters and cosmetic specialties, was formerly research chemist for the West Disinfecting Co. He is said to be co-developer of the Army and Navy anti-flash and insect repellent creams, and will be assisted by Dr. Charles Lankau and Dr. Jay Foster in the development of industrial protective creams, synthetic waxes and esters, cosmetic specialties and raw material substitutes.

Anchor-Hocking Changes

William V. Fisher, vice-president and general manager of the Anchor-Hocking Glass Corp. has announced the appointment of James J. Glynn as sales manager of the corporation's Pacific Coast operations—the Pacific Coast Closure Division, and the Maywood Glass Co., both of Los Angeles. He also announced that Paul L. Hershfield has been made general factories manager of the corporation's glass container plants.

Mr. Glynn succeeds Hugh Crawford who has resigned. He has been with the company since 1931 and was formerly assistant sales manager of the Container Division and later manager of production control. He will make his headquarters at the offices of the Maywood Glass Co., 4855 E. 52 Place, Los Angeles 22.

Mr. Hershfield has been a member of the Anchor-Hocking staff since 1931 and was formerly manager of the Salem, N. J., plant. He will make his headquarters at the company's general offices in Lancaster, Ohio.

McK. & R. Retirement Plan

A retirement income plan for employees has been approved by the directors of McKesson & Robbins, Inc. All the costs of the proposed plan will be financed by the corporation and it is designed to provide retirement income for qualified employees who reach the age of sixty-five and who have spent a minimum of fifteen years in service of the corporation. Under certain conditions, employees who have reached the age of sixty may be retired with a reduced retirement allowance.

Associations

Hill Heads Proprietary Assn.

James Hill, Jr., president of Sterling Drug Inc. was elected president of the Proprietary Association of America at its sixty-second annual convention at

JAMES HILL, JR.

the Hotel Biltmore, New York, May 15 to 17. Mr. Hill succeeds Fred E. Rathburn, Olive Tablet Co., Columbus, Ohio.

Dr. Frederick J. Cullen was re-elected executive vice-president and Charles P. Tyrrell, secretary-treasurer. Kenneth Bonham of Emerson Drug Co., Baltimore, and Thomas Singleton, Murine Co., Chicago, were elected members of the executive committee.

The by-laws were amended to provide for the appointment of four former presidents of the association as honorary vice-presidents so that the association may benefit by their experience. The first honorary vice-presidents under this amendment are: Mr. Rathburn, R. R. Land, Kilmer & Co., Charles S. Beardsley, Miles Laboratories; George H. Miller, the Musterole Co. In addition, three active vice-presidents were chosen: Lupton Patten, Chattanooga Medicine Co.; H. H. Hoyt, Carter Products; and W. W. White, Emerson Drug Co.

A.P.M.A. Meeting

The American Pharmaceutical Manufacturers' Association held its annual meeting at The Homestead, Hot Springs, Va., June 5-7. At the opening session the morning of June 5, the president gave his annual report, and the general counsel gave his. Other speakers were: Maj. General George F. Lull, Deputy Surgeon General, War Department, and Brig. General J. S. Simmons, Chief of Preventive Medicine Service, Office of the Surgeon General, War Department.

The meeting the morning of June 6 was a special post-war session at which major post-war problems were discussed by: James T. Shotwell, Director, Division of Economics and History, Carnegie Endowment for International Peace; Hon. Paul van Zeeland, formerly Prime Minister of Belgium; Hon. Redvers Opie, counsellor and economic adviser, British Embassy; and Ray B. Westerfield, Professor of Political Economy, Yale University.

At the post-war business session, the afternoon of June 6 addresses were made by Dr. Carle M. Bigelow, Calco Chemical Division, American Cyanamid Co. —"The Executive Approach to Our Post-war Problems;" Dr. R. J. Fosbinder, The Maltbie Chemical Co.— "Research—Its Future Position in Our Industry;" S. D. Chamberlain, Kendall Mills Co.—"The Practical Application of Aptitude Testing in the Field of Sales Management;" Arthur F. Peterson, Schering Corp.—"The Modern Technique in Training Professional Service Representatives."

The closing session in the morning June 7, was addressed by Dr. E. L. Newcomb, executive vice-president, National Wholesale Druggists Association—"The American Foundation for Pharmaceutical Education;" Fred A. Lawson, the E. L. Patch Co.—"Report for Committee on Business Policy on Industry Action for Medical and Retirement Protection of Employees;" Lt. Colonel Ralph R. Patch, Office of the Surgeon General, War Department— "War Manpower Problem;" Fred J. Stock, Chief of Drug and Cosmetic Section, Chemicals Division, War Production Board—"Allocations and Priorities;" and Hugh Craig, editor, *Oil, Paint and Drug Reporter*—"Drug and Cosmetic Shortages." Clifford K. Berryman of Washington was the speaker at the annual dinner on June 6.

N.W.D.A. to Meet in New York

The National Wholesale Druggists' Association will hold its seventieth annual meeting at the Waldorf-Astoria Hotel, New York, September 24 and 25.

Essential Oil Trade Marks

The Essential Oil Association of U.S.A. has recently brought out a mimeographed "Registration List of Trade-Mark Names & Coined Names in Use by Members of the Essential Oil Association of U.S.A." The list is in loose-leaf form so that additional supplements can be published as needed.

Chemical Salesmen's Golf

The Salesmen's Association of the American Chemical Industry held a golf tournament at Bonnie Briar Country Club, Larchmont, N. Y., May 25.

Speakers before the Scientific Section, of the Proprietary Association: Dr. Edward C. Merrill, Dr. Louis M. Roeg, Dr. Lloyd W. Hazelton, Dr. J. D. McIntyre, Dr. J. P. Snyder, Dr. Thomas Lewis, Dr. James C. Munch, and O. S. Gibbs, M. D.

Meyer Heads Extract Assn.

The Flavoring Extract Manufacturers' Association held its thirty-fifth annual business meeting Monday and Tuesday, May 22 and 23, at the Hotel New Yorker, New York.

The new president is Garret F. Meyer, Warner Jenkinson Mfg. Co., St. Louis. Other officers are: 1st vice-president, William B. Durling, William J. Stange Co., Chicago, 2nd vice-president George M. Chapman, Liquid Carbonic Corp., Chicago; 3rd vice-president Clark C. Nolland, George H. Nolland Co., Cincinnati; secretary, E. L. Brendlinger, Dill Co., Norristown, Pa.; and treasurer, Leslie S. Beggs, Styron Beggs Co., Newark, Ohio.

Anchor-Hocking Buys Carr-Lowrey

Anchor-Hocking Glass Corp., Lancaster, Ohio, has acquired the outstanding stock of the Carr-Lowrey Glass Co., Baltimore. George F. Lang will continue as president of Carr-Lowrey and the present management will be retained.

Thomas Heads War Ad Council

Harold B. Thomas, vice-president of Sterling Drug, Inc., has been elected chairman of the War Advertising Council. He will continue his duties with Sterling Drug.

New Drug Mfrs. Association

The National Association of Rubbing Alcohol and Drug Products Manufacturers, Inc. was organized in May, 1944, under the laws of the state of Maryland. The officers are: president, Herman M. Shapiro, Purex Products, Baltimore; vice-presidents, David Muchnick, Mifflin Sales Co., Philadelphia, and Julius Richter, Twin City Mfg. Co., Norfolk; secretary-treasurer, Edward Roseman, Adde Co., Baltimore. In addition to the officers, other directors are: David C. Gross, Integrity Magnesia Co., Philadelphia; Martin Sachnoff, Pennex Products Co., Inc., Pittsburgh; and W. N. Stevenson, Jr., W. N. Stevenson, Philadelphia.

The headquarters of the association are at 3241 O'Donnell St., Baltimore.

BIMS Announcement

The executive committee of the BIMS announces that owing to circumstances beyond its control, the golf date on July 25 at Siwanoy has been called off. The tournament will be held instead at the Winged Foot Golf Club, Mamaroneck, N. Y.—the date remains the same, Tuesday, July 25.

Conti Buys Draper Soap

Chas. L. Huisking, president of Conti Products Corp., has announced the purchase of Draper Soap Co., Pawtucket, R. I., which will be operated as a division of Conti.

The company has also taken title to a large building and land adjoining its plant in Brooklyn.

Obituaries

Douglas P. Campbell

Douglas P. Campbell, southern representative of S. B. Penick & Co., died suddenly in Roper Hospital, Charleston, S. C., May 25, as the result of a heart attack.

Mr. Campbell joined Penick in 1937 as northwestern representative with headquarters in Minneapolis, and later was a member of the Chicago staff.

Before his association with Penick he was for several years with Northwestern Drug Co., Minneapolis, and subsequently established his own business as a manufacturers' representative.

Frank R. Huisking

Word was received May 9 of the death in Italy on April 18 of Lieutenant Frank R. Huisking, a pilot in the U. S. Air Force. He was twenty-seven.

LT. FRANK R. HUISKING

He was the son of Mr. and Mrs. Charles L. Huisking of Huntington, L. I., and his father is the head of Chas. L. Huisking & Co., Inc., and Conti Products Corp. Upon his graduation from Notre Dame in 1937, Lieutenant Huisking joined Conti Products Corp. and at the time of his enlistment in 1942 was secretary of that company.

In addition to his parents he is survived by four brothers, Charles L. Jr., treasurer of Aircraft Screw Products Co.; Sergeant William W., U. S. Army; Lieut. Edward P., U. S. Marines; Lieut. Richard V., U. S. Navy and three sisters, Evelyn, Jean and Claire.

John A. Garvin

John A. Garvin, assistant secretary and sales manager of Merck & Co., died at his home in South Orange, N. J., May 11. He was fifty-one years old.

Mr. Garvin was graduated from Princeton University in 1914 and on

JOHN A. GARVIN

December 11, 1916, joined Merck & Co. and served in various capacities until his appointment to the two positions which he held at the time of his death.

He served as a First Lieutenant in World War I and during World War II, in addition to his other duties, was in charge of priorities and other company relations with the War Production Board.

Kenneth J. King

Kenneth J. King, chief engineer of Commercial Solvents Corp., died suddenly at Terre Haute, Ind., April 24, at the age of forty-six. He had been associated with Commercial Solvents since 1933 and recently finished supervising construction of the penicillin plant at Terre Haute.

Dr. William Mason Grosvenor

Dr. William M. Grosvenor, retired chemist and chemical engineer, died May 30 in the Park East Hospital, New York, after a long illness. He was seventy years old.

He received a B. S. degree in 1893 from Brooklyn Polytechnic Institute, did post-graduate work at Johns Hopkins University and received in 1898, a Ph.D. from the University of Pennsylvania.

From 1907 to 1940, when he retired, Dr. Grosvenor was a consulting chemical engineer and chemist in New York. During this time he served more than 100 firms as an expert witness in patent litigation.

Dr. Grosvenor held many patents and had developed processes for making artificial leather and dyestuffs.

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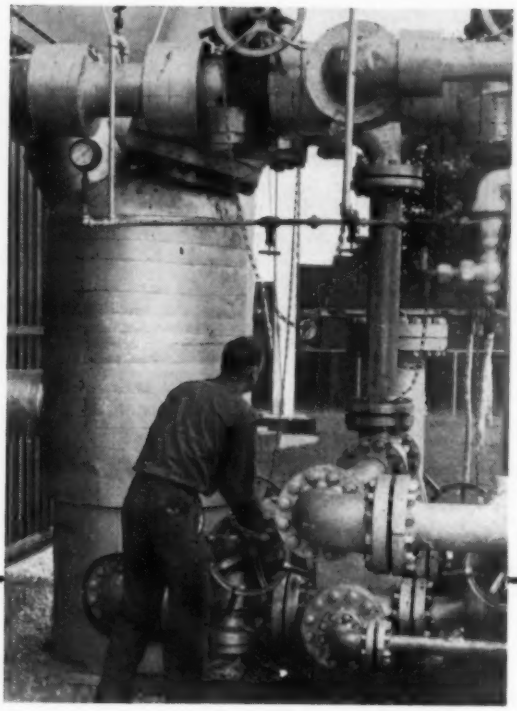

You determine *where* the control of moisture will serve you best—in standardizing procedures, speeding output, improving product quality. Then let Lectrodryer help you determine *how* to handle each case. No need for your engineers to struggle with unfamiliar problems.

DRYing is our specialty—drying of air, gases and organic liquids. Lectrodryer engineers have been doing this kind of work for years, in many industries. Their recommendations are based, therefore, on experience, not guesswork.

Lectrodryers work with other equipment to maintain the constant degree of dryness desired in the conditioning of air. They dry gases and air to extremely low dew points, at either atmospheric pressure or compressed to 3,000 pounds per square inch. They do an equally efficient job with many organic liquids.

Quite often, when you call on Lectrodryer for DRYing service, there's a standard machine which will handle the assignment perfectly. If it requires special features, we can build that for you, too. PITTSBURGH LECTRODRYER CORPORATION, 309 32nd Street, Pittsburgh 30, Pennsylvania.

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Production Forum

By Francis Chilson

Industrial Consultant

A Man's Hire

Within the last few days a couple of interesting points came up in connection with the ethics involved in the relationship between an employer and his employees. The question is this: How much of a man's time and thought is an employer really entitled to? Does the relationship between employer and employee cease at the end of the day and begin again in the morning or is it a continuous affair for the duration of the employment period? Two incidents brought these questions to light. One of the firms in the trade just fired a star salesman because they discovered that on the side he was carrying a couple of non-competing lines. Had the salesman been the average run-of-the-mill type, firing him obviously would have been the final answer. But this man was an exceptional salesman. His record with his principal company was excellent. In his territory, he surpassed the record of anyone who had ever preceded him and indeed his record surpassed that of any salesman in any other territory. If I had handled the situation, it seems to me that I would have given the chap a good talking to and then I would have given him a substantial raise so that he wouldn't feel obliged to amplify his income by selling outside lines. I'd have given him a raise big enough to insure the absorption of his whole energy. It could be argued, however, that if you did that, it would create an organization problem by making the other salesman sore. There is a nice point of ethics involved here, because the man obviously was not in any way impairing the interests of his principal company.

The second came up at one of the machinery outfits. An engineer, on his own time and away from the plant, invented a new machine, which bore no relationship to the line of machinery that his employer manufactured. Realizing that the machine had a wide market, the engineer proposed to his employer that the machine be manufactured by his firm and that a royalty be paid to him. In this case, the legal status of the case is perfectly plain because I think the law will agree that the invention belonged to the engineer and he could do what he liked with it, but the employer got sore. He felt, on the one hand, that he couldn't pay a royalty to one of his engineers without creating an organization problem, for the reason that the other engineers would feel jealous and that they might start a lot of outside inventing on their own account. The employer felt that the engineer should turn the patent over to his company because he was under contract to assign all inventions in the company's particular field over to the company, but this invention was outside the field. I believe the engineer is clearly entitled to it, and I think that he made a mistake in offering it to his employer on a royalty basis, and I also think the employer made a mistake in agreeing to build the equipment.

In some other cases men work at other occupations after their regular work is finished. Some employers object strenuously to that on the ground that an employer is entitled to a man's full physical and mental energies and that when he is off duty he is morally obligated to restore those energies by rest and recreation so that he can at all times work at peak efficiency for the man who is his regular employer. I cannot wholly agree with this attitude either, although I can appreciate the danger of a man's working so hard at a part-time job that it would interfere with his regular occupation. It strikes me that all three situations can be handled through a liberal payroll attitude. The payment of a liberal wage scale plus incentives or bonuses for exceptional effort or suggestions would help to cure a lot of employer-employee difficulties. It seems only natural if a man is exceptionally intelligent and energetic that he will make an effort to amplify his income, especially if he feels that his regular salary is not altogether adequate.

Utilization of Labor

At this moment we are all crying in our beer over the labor shortage. We've done a lot more thinking about how to get more labor than how to utilize to the best advantage the labor we have. I've been in a lot of plants lately and have seen so many inefficient set-ups and so much lost motion, that it struck me in some cases that too much, instead of too little labor was being employed. In one instance, one of my friends has done a remarkably fine job increasing by a tremendous percentage the output of his plant. Actually, he is using fewer operators now than he was a year ago and as a matter of fact he also has less machinery to do the

In wartime medical science fights . . . to mend bodies and minds broken by war . . . to control the diseases that are more prevalent in war.

The availability of human blood plasma, for instant use in emergency transfusions, has already saved thousands of lives in the present conflict . . . will save thousands more.

Credit high vacuum . . . within the micron range . . . for making possible the drying and preserving of blood plasma. Stokes was privileged to assist in the development of this method for drying human blood plasma from the frozen state . . . to engineer and build special vacuum equipment and high vacuum pumps which make possible the large-scale production of plasma and other liable biological and pharmaceutical products which are now required.

Stokes engineers and builds equipment for applying high vacuum methods to many processes . . . also tablet machines and other types of pharmaceutical equipment; tube filling, closing and sealing machines; water stills for laboratory and industrial purposes; and other specialized equipment. Consultation is invited.

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job now than he had then. But I have noticed that he is extremely careful in training new employees and he makes a point of seeing that materials move smoothly to and from the points where they are used. His personnel policy is extremely friendly, and, while he has had some losses of labor through the competition of other higher-paying industries, he also has been gratified by the fact that some of the people who left him, came back again, saying that they'd rather work for a kind boss in decent surroundings than to work in the hectic atmosphere of some of the war plants. Good supervision is worth its weight in gold. In many cases, the trouble is that we're so damned busy, or think we are, that we haven't time to think our jobs through.

One for the Book

"The reason for comparing present with past performance is for justification, not inspiration." This profoundly wise observation was made by my friend, Howard Sumner, not so long ago as he blew suds into my eye as we talked over a table in one of the local hostelries about the very common practice of assuming that because the record shows you are doing a much better job now than you were then, that you are therefore doing as well as you could. I've always held that if you compare your present performance with that of someone who is doing a better job, you've got something to shoot at. To Hell with the past, is a good axiom for production men to follow. You can always find somebody who is doing a much better job than you are if you look around a bit. Friend Sumner occasionally utters profound remarks without too much inspiration.

Rest in Pieces

Although it is the customary practice to write obituaries after somebody kicks the bucket, I propose to do it from time to time for a few of my friends before they kick the bucket. I'd much rather see them tip the bucket, than kick it. I suppose encomium may be called an antonym of obituary, so this is an encomium about my friend, Dr. Eddie Merrill, Director of Research for United Drug. Eddie is a very handsome gentleman with a nose like the handle of a beer mug. Although he is noted in the industry for his numerous contributions to science, I know him also as a mathemetician of parts, even if the parts are a little scattered at times. Eddie is one of the three great mathemeticians of history. The first was Euclid, whose fifth proposition, *pons asinorum*, is well known to reluctant school boys; the second is Einstein with his theory of curved light; and the third is Eddie Merrill with his equine paradox;—"There are more parts of horses than there are horses." The French have another way of saying it. I have no idea how Eddie derived this theory but the proposition is easily demonstrable. Eddie tells me that whenever he goes to the races, he always uses the equine paradox in calculating his chances. Eddie is full of the wine of life which is another way of saying that the old cadaver is still full of juice. I hope he continues to illuminate the next 100 years.

High Taxes and Research

A curious aspect of the tax situation is that abnormally high taxes will be the means of stimulating research and development. Research expense and virtually all development expenses can be written off. Therefore, since manufacturers in the high tax brackets cannot invest profits in the business as capital and since they cannot legally change their capital structure merely to obtain a more favorable tax base, they will write off a substantial part of their profits in research. Small firms which formerly did no research as such will do it now because they can afford the shot. This broadening of research will ultimately increase profits still more, but increasing profits will increase the total tax collection and this, in turn, will reduce the national debt and hence in time the tax rates.

In my own business, the trend can be seen already. As this goes to press, letters from eight companies are lying on my desk all asking terms for modernization programs. One manufacturer having considerably less than a million in volume was told bluntly that he could not afford to pay my rates. He responded; "The hell I can't. Uncle Sam will pay 90% of it."

This story illustrates the general attitude. Manufacturers are not worrying about profits now—and as for stockholders—to hell with them! So when the smaller firms begin plowing virtually all their profits into research and modernization programs, the big outfits, with better tax bases and hence less inducement to spend a major portion of their profits in research or modernization, had better look to their laurels. Competition will be fierce and ruthless and the outfits that are relatively small now will be the commercial panzers of the future.

The same reasons that will stimulate research will also stimulate advertising and sales programs. Advertising and sales expense can be written off. Increased volume and profits cannot fail to follow increased expenditures for research, modernization, advertising and selling. In the face of the competition that is certain to come from the now small but profitable companies, God help the unprofitable companies,—they will be brushed aside;—God help the big companies with good tax bases and hence no need to build up construction expenses to cut profits;—they will take a whale of a beating from the post-war panzers which will move fast and hit hard.

Lest We Forget

As the war approaches its climax, let us not forget the lessons taught us by the movement of millions of American men and the flights of myriads of war planes across thousands of miles of ocean. "What man has done, man can do." Keep this old adage in mind. At another time and in other circumstances, thousands of enemy planes and millions of enemy warriors may duplicate our feat and converge upon our shores unless we mentally arm ourselves now against the tremendous pacific reaction which will follow the end of the war. Already misguided pacifists are protesting that in-

LABELING—*at its best; economical, fast,—*

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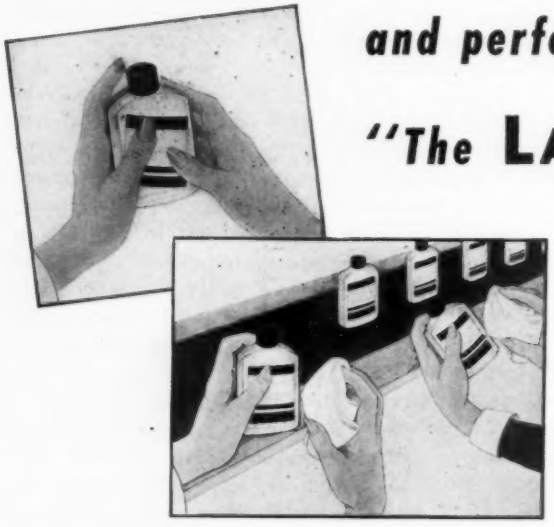
"The LABELRITE *method"*



There are years of satisfaction in buying a LABELRITE; years that repay you for taking the time to select your labeling equipment on the basis of doing *better* work, doing it easier, and requiring less attention in either operation or adjustment.

- **no wiping of bottles**
- **petty-cash change-parts**
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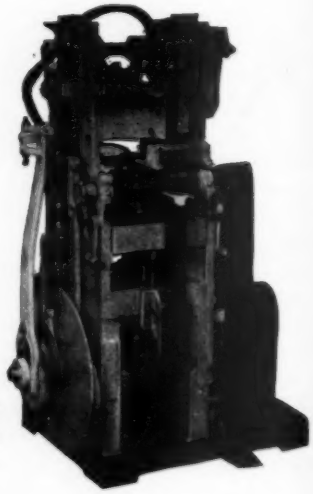

Compare the number of parts; the function of each part, the exclusive features which have been incorporated in the Labelrite design, and you will see why Labelrites enjoy their outstanding reputation. True—war essentials may delay delivery of the unit you require, but an order placed NOW, will take precedence from its dating . . . Place your order *before* government restrictions are modified.

***Get* FACTS—*and you'll get* LABELRITES!**

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16th St. & Willow Avenue . . .. Hoboken, N. J.

Chicago Office: 325 W. Huron Street

sistence on "unconditional surrender" is prolonging the war. They are weeping bitter tears for the German "civilians" who now are reaping the whirlwind for the wind they sowed. When peace comes, we'll all be tired of arms and the tread of marching feet. Unless we are careful we'll listen to the foolish people who insidiously will bring pressure to bear to sink the Navy; to emasculate the Army; to end compulsory military training;—just as they did after the last war, because "it could not happen again." And the pacifists will be supported by tax sore business men, who will howl about the cost and futility of maintaining a large military establishment. They did it before; they'll do it again. So beware! The next time we may not be lucky enough to have Britain as an outer rampost until we can prepare.

Poverty and Industry

It is interesting to speculate what will happen to the cost of our raw materials when, as it surely must, education spreads throughout the world and the backward countries become somewhat industrialized. Many of our drugs and many of our aromatic materials are gathered by what is virtually slave labor. What, therefore, will happen to our economy when the educated savage or peasant demands a dollar instead of a cent a day for his labor? The answer will come probably in several ways. Cultivation of what are now wild raw materials will increase yields and mechanical harvesting will increase quantities that can be handled by individuals. Possibly some raw materials will be abandoned for reasons of cost and substitutes found for them. Others will be synthesized. But there'll be a tough adjustment period just the same. We are already witnessing such an adjustment in our own country in connection with cotton. The competition of synthetic fibres is cutting into the cotton market, but the basic cost of cotton is too great to permit it in turn to compete with other materials; as, for instance, wood pulp for paper making; hence, the mechanical cotton picker, which may save cotton even though hundreds of thousands of small farmers and share croppers are deprived of their traditional livelihood.

Cartoners and Cartoning

Of all packaging machines, automatic cartoners are the most expensive, and their price is steadily increasing. Depending on the type and complexity of the package to be handled in them, automatic cartoning machines will cost from eight to twelve thousand dollars. Excepting for large scale applications, that's too much dough for one relatively limited machine. I say "relatively limited" because the operation of cartoning itself is not limited. But because of their cost, cartoning machines are limited to the few larger volume items which alone can justify a cartoning machine installation. I anticipate after the war that several new firms will enter the cartoning machinery field and broader competition will have a salutary effect on machine prices.

In the meantime there are several expedients. In the first place, don't use cartons where they are not needed. The function of a carton is to protect the package, hence packages that are easily dented or marred, such as collapsible tubes and certain cosmetic packages will always have to be cartoned. In certain cases in the drug field cartons are essential because so much copy is required by law that label surfaces are not large enough, therefore recourse is had to circulars and cartons.

The second expedient is to change your carton from a tuck to a glue flap and use a Ceco sealer. This machine, made by the Container Equipment Corporation of Newark, N. J. is a device for simultaneously gluing and sealing both ends of a carton. The device is simple. It is adjustable over a wider range of sizes than any automatic cartoning machine ever has been. And it costs about one-eighth as much.

The speed of the Ceco Sealer is equal to that of any automatic cartoning machine. Its speed is limited only by the length of the compression belt, the length of the intake and the number of operators employed in feeding it. Depending upon desired output, the Ceco Sealer requires one or more operators, who are obliged to square up the cartons, insert the tubes or jars and drop the packages into the intake chain or conveyor. The machine does the rest.

You must remember that in operating an automatic cartoning machine at least one girl is needed to service it. When corrugated liners are inserted as well as circulars, high speed operation will require two girls to service the machine.

From the standpoint of the output per operator, you can, with a Ceco Sealer, come within shooting distance of the output per operator of an automatic cartoner. You'll have to do a little gadgeteering of course, such as rigging up an adjustable carton hopper above the intake of the sealer. You can rig this up in time with the intake chain, so that cartons will be pulled out and fed to the operators with the score lines broken. It isn't necessary to try to square the carton up, the operator will do that without an extra motion when she inserts a container into the carton. The hardest part of making up a carton by hand is breaking the seams or score lines and you can do this automatically as the carton is mechanically pulled out of the magazine.

Since the function of the carton is to protect the package against damage, it should also be used to protect it from a sanitary standpoint. Your sales department could make a point of the fact that no hands but the purchasers can touch the package. In medicinal packaging at any rate, I think this is vital; it should be made legally mandatory. Food packages are sealed; why shouldn't drug packages be sealed also? One day in a Chicago drug store I saw a man remove a bottle of cough syrup from its carton and after removing the cap take a sip of it. Whereupon he resealed the package, handed it back to the druggist and demanded something else, because he didn't like the taste of it! And I'll be damned if the druggist didn't comply with

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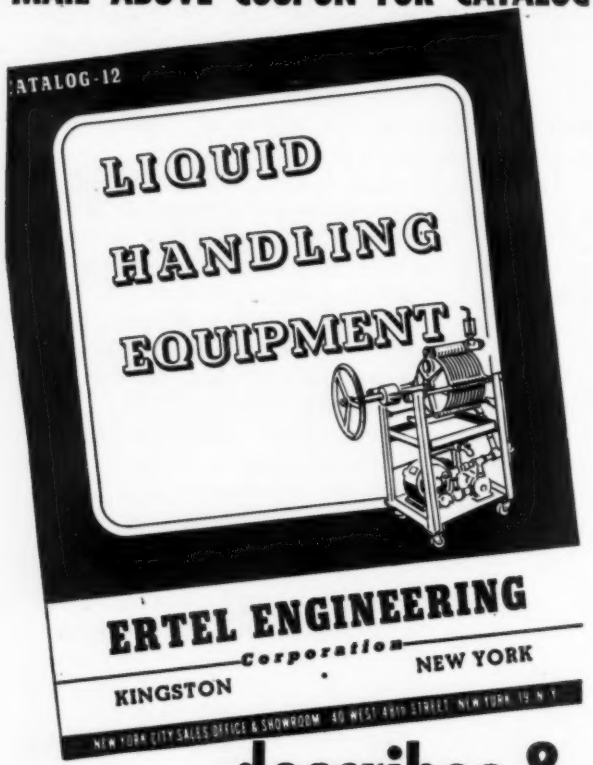

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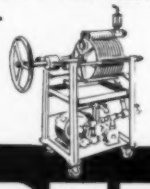
The catalog that contains the secret to improved Drug and Cosmetic manufacture . . . The equipment that is used extensively in making superior quality products . . . The answer to your liquid handling problems.



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ENGINEERING CORP.
KINGSTON, NEW YORK

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Department E
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NEW YORK, 19, N.Y.

his wishes! Apparently neither saw anything insanitary about the proceeding. A sealed carton would have prevented such an occurrence.

If your sales department is pig headed about changing the carton, then go half way. Use glue flaps on the bottom and tuck flaps on the top. With this construction you still can use the Ceco Sealer and again, with some gadgeteering, you could break the flap and plow it in as the carton travels through the sealer.

You may think this is an unusually strong plug for a particular machine. It is, but I have no stock in the company nor any axe to grind. This machine embodies the principles I have long advocated in packaging machine design:—

It is adjustable almost without limit; Adjustments can be made in seconds with handwheels and without hanging special gadgets all over the machine; The machine is fast; The machine is simple; The machine is easy to clean; The machine is good looking; And it can be operated by unskilled girls with virtually no preliminary training.

When an outfit does an unusually good job I doff my bonnet to them, even as in this case, I do not personally know a single individual connected with the organization.

Advertisement

An outfit to keep your eye on in the post-war era is Newark Engineering Company, Newark, New Jersey. This outfit, formed as a depression baby, had already done some remarkable things before war work forced a diversion of its activities. Bottle printing machines originated there. So did practical printing machines. This organization did a lot of special work for me before the war and it was good.

Newark Engineering Co. is headed by my friend, John Friden, who is a Scotchman from Sweden. When we get together on an idea, John's standard opener is "Fronk, you godtam fool, you always expect the impossible, by Yesus!" As often as not John proceeds to do the impossible. Friden is one of the most capable engineers I have ever known. As Vice-President of the Sun Tube Company he was responsible for designing and operating their remarkable container plant. A plug like this will not give John a swelled head. Swedes heads are too hard to swell up.

It is said of him that in Sweden once he took a bath in aquavit and then threw the tub away. The story is probably apocryphal. I don't doubt that he took a bath. And Swedes have been known to manifest a partiality for aquavit. But as for throwing the tub away—never! As I said above, there is too much Scotch in John for that.

What's Cookin'

Within a few years after the war I expect the following machines to be available:

Liquid filling machines which will not be limited by container shape since they will carry the bottles by the neck.

Label printing machines which will print your labels in colors directly on the containers and which will operate as part of regular packaging lines.

Complete package units in which the operations of cleaning, filling, capping and labeling or imprinting will be accomplished on individual machines.

Vacuum powder fillers which automatically will feed tapered drums from magazines and then will fill and seal the drums accurately and without dust.

Sealing machines for the automatic application of cellulose and gelatin bands and caps.

Tablet counting and packaging machines which accurately will fill all shapes and sizes of tablets without changing parts for different tablets or containers.

Semi-automatic cartoning machines for tuck or glue flap cartons.

Rotary case sealers which will return sealed cases to the loading operator who can stock the sealed cases or skids without having to move from the loading position.

Automatic case stitching machines which will "Sew" the flaps of cases together instead of gluing them.

Automatic bottle cleaning and sterilizing machines which will be less than ten feet long.

Automatic rouge presses which will feed pans, make preforms and press finished cakes at several times current speed.

Powder making machines which simultaneously will premix and mill medicinal and face powders.

Homogenizing mixers in which emulsions can be simultaneously premixed and homogenized.

Conveyors which will move powders by a new principle and which will be self-cleaning.

Electronic and infra-red dryers which will accomplish in minutes what it now takes hours to do.

Vacuum spray dryers for concentration of extracts containing volatile solvents.

Continuous rotary presses for drug extraction and similar operations.

Continuous extraction and recovery columns which will revolutionize drug and oil extraction.

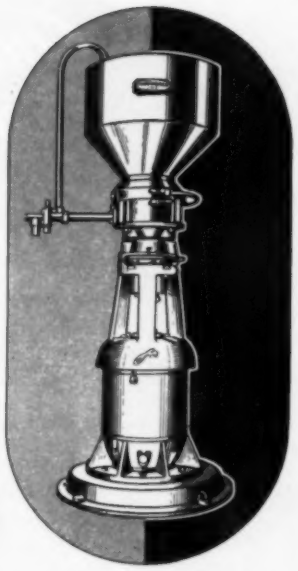
Electronic antoclones and sterilizers.

Postwar Export Markets

(*Continued from page 647*)

in Latin-America, with the understanding that they will be used only to the extent necessary to preserve the validity of their registration." Therefore, Sterling has filed applications in a number of Latin-American countries to register in each these 120 trade-marks. Naturally, if the Government had been willing that the procurer of these trade-marks use them to the full extent rather than use only to the extent necessary to keep them valid, the whole German business in drugs and pharmaceuticals would at once be available to manufacturers in this country. It was probably this restriction on their use that prevented other manufacturers from volunteering to acquire them. It had to be some manufacturer like Sterling who had a direct com-

(*Continued on page 733*)



TWO PROCESSING MILLS IN ONE

1. ***An Eppenbach High Speed Wet Grinding and Colloid Mill*** **will reduce the size of solid particles to microscopic dimensions and effect their instantaneous dispersion in fluid or plastic materials as consecutive operations in the same cycle.**

2. Operation of the EPPENBACH COLLOID MILL requires neither training nor special skill—merely attention to simple directions. A calibrated dial registers adjustment of clearance between milling surfaces thus assuring higher uniformity of treatment.

EPPENBACH COLLOID MILLS are available in laboratory and production sizes. Capacities range from ½ to 3600 gallons per hour or higher. The principle of operation is the same for all sizes; therefore performance and capacity can be accurately predetermined by experiment with a laboratory unit.

EPPENBACH COLLOID MILLS can be adapted for pressure feed of viscous and semi-plastic materials. They are easy to dismantle for cleaning and sterilizing.

Write for Catalog No. 401 describing our equipment in detail.

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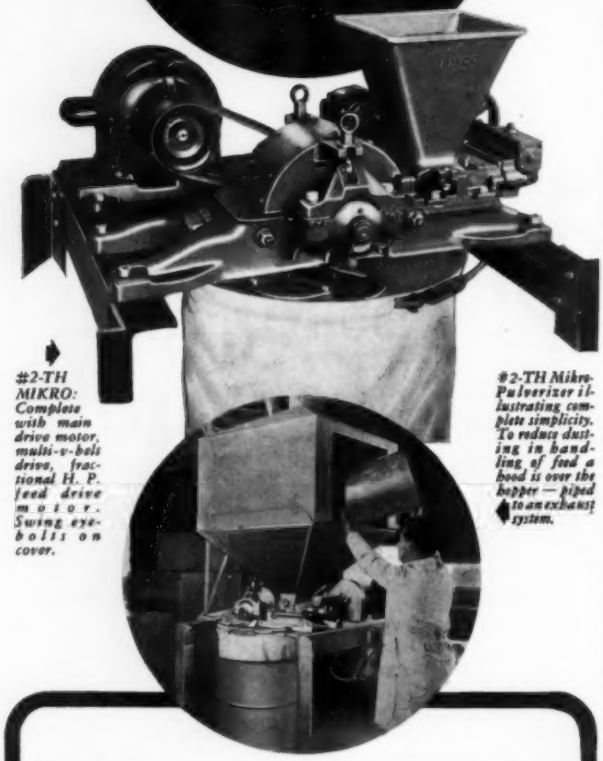
EPPENBACH INC.
Processing Equipment for Over 30 Years

One Step

FROM FEED TO FINISHED COSMETIC!



#2-TH MIKRO: Complete with main drive motor, multi-v-belt drive, fractional H. P. feed drive motor. Swing eye-bolts on cover.

#2-TH Mikro-Pulverizer illustrating complete simplicity. To reduce dusting in handling of feed a hood is over the hopper — piped to an exhaust system.

Do you require a more complete and uniform dispersion of color and perfume throughout your cosmetic powders or rouge?

Or a dependable particle size reduction to improve texture and blend?

Do you want to reduce color and perfume costs 25 to 30% — cut processing time as much as 50% — eliminate all pre-grinding, bolting and aging?

Regardless of your formula or color range, it's just *one step* from feed to finished face powder or rouge with the dustless compact MIKRO-PULVERIZER!

THE MIKRO-PULVERIZER
blends and pulverizes in one operation!

- Eliminates screening
- Keeps air dust-free
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- Saves power from 25 to 75%
- Requires a minimum of attention of unskilled help — mesh controlled mechanically
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Free *Informative new 32-page catalogue showing the complete MIKRO-PULVERIZER line sent on request.*
Confidential FREE test grind on submitted samples.

PULVERIZING MACHINERY COMPANY
CHATHAM ROAD • SUMMIT, NEW JERSEY

READERS'

PLEASE NOTE: We have been receiving a number of requests asking us to provide the formulas of specific, well-known pharmaceutical and cosmetic preparations. Although these are sometimes available to us and frequently published in the literature, it is contrary to the policy of this publication to reveal the composition of such products.

ALCOHOL FREE AFTER-SHAVE LOTION: I desire a formula for making a good marketable after-shave lotion without alcohol. Thank you. Lincoln.

A certain amount of alcohol appears to be needed to dissolve such soothing and cooling agents as menthol. However, the following formula should serve to prepare an after-shave lotion with a very low alcohol content.

Menthol	**2 parts**
Tragacanth	**10 parts**
Benzoin tincture	**50 parts**
Glycerine	**40 parts**
Cassia oil	**1 part**
Cinnamon leaf oil	**4 parts**
Geranium oil	**5 parts**
Water	**888 parts**

LIQUID CLEANSING CREAM: We have been purchasing a private label liquid cleansing cream but our manufacturer has discontinued production of this item for the duration. Can you supply us with a formula for an efficient liquid cleansing cream? Please provide a formula which uses materials that are now available. Washington, D. C.

The following will probably suit your purpose and I believe that all the materials listed are fairly well available:

Glyceryl monostearate	**6.0**
Water	**75.5**
Glycerine	**10.0**
Stearic acid	**1.0**
Oleic acid	**2.0**
Mineral oil	**5.0**
Perfume	**0.5**

Put all the ingredients into a kettle excepting the perfume and heat until melted and mass is slimy. Agitate continuously until mass is cool. Then perfume.

DOG REPELLENT PREPARATIONS: Can you supply formulas for liquid dog repellent preparations? New York.

The following are indicative of the types of deterrents which are generally employed. For example, one simple preparation consists of equal parts of soft soap, alcohol and pine oil. Another preparation for the same purpose can be made from:

Naphthalene flakes	**4 oz.**
Paraffin wax	**¼ oz.**
Gasoline	**1–2 pt.**
Rosin	**¼ oz.**

Stir until dissolved; spray on base of tree trunks or shrubs with an insect spray gun.

QUESTIONS

SUNTAN PREPARATIONS: We are interested in basic formulas for two products in the suntan class, the first to be an oily cream and the second a transparent oil which would be a blend of oils containing a color filter. Monterrey, Mexico.

A cream preparation with an oily base can be prepared from:

Beeswax, white	**8.0**
Spermaceti	**8.0**
Ceresin	**3.0**
Screen	**5.5**
Mineral oil	**50.0**
Lanolin, pale	**2.0**
Water	**23.0**
Borax	**0.5**

A typical basic formula for an oily suntan preparation is as follows:

Mineral oil	**52.3**
Vegetable oil	**44.0**
Screen	**3.0**
Perfume	**0.5**
Color	**0.1**
Preservative	**0.1**

As a preservative, propyl parahydroxybenzoate may be employed or benzyl parahydroxybenzoate may be used.

Suitable oil-soluble sun screens can be obtained from manufacturers listed in the advertising pages of this publication.

MUSCLE OIL AND ROSIN DEPILATORY: I would appreciate a formula for an emulsion or combination of oils to serve as a muscle oil and to benefit a sensitive and dry skin. I would also appreciate your advice on a formula for a rosin depilatory. Oak Park.

A standard formula for a so-called muscle oil is as follows:

Cholesterin	**2.0**
Lecithin	**0.6**
Alcohol	**12.0**
Castor oil	**12.0**
Olive oil	**24.0**
Liquid petrolatum, enough to make	**100.0**

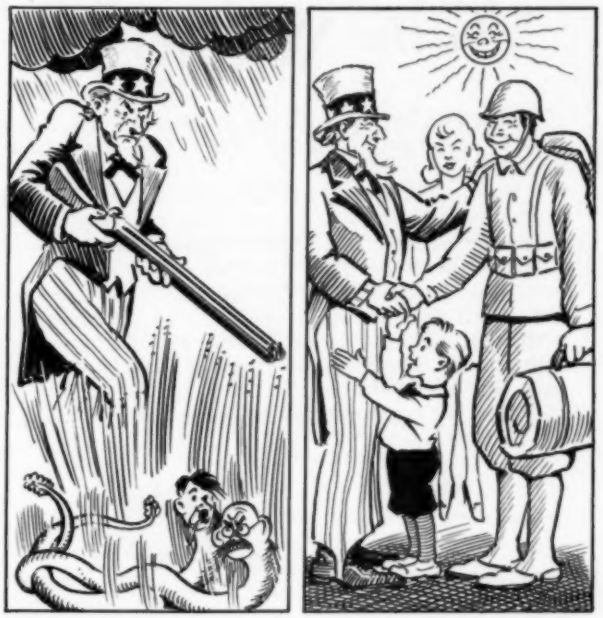
A Rosin depilatory can be made from the following:

Light colored rosin	**52.0**
Yellow beeswax	**25.0**
Paraffin	**17.0**
Petrolatum	**5.0**
Perfume	**1.0**

Melt the rosin and the waxes, mix and add the petrolatum then when the temperature drops to about 60° C., add the perfume and pour the melted mass into suitable molds. When this wax is used it is melted and painted over the surface to be dehaired.

A War Vocabulary

TODAY and TOMORROW



Today we are armed to the teeth, fighting the snakes in the grass.

Tomorrow let us be ready to welcome and deserve the sunshine of peace.

To be ready for this peace—to merit it and to enjoy it—we must be a wholesome people. To be wholesome is to be sound in mind, morals and character. Such a nation can be the leader in a peace. Wholesomeness is not a weakness, but in fact the strongest kind of armament, if backed up with firmness and determination that fair play must prevail. And fair play does not mean as you or I might want to selfishly determine it, but as it affects all mankind—all conditions and kinds of people who will in turn subscribe to it.

When today's job is done, we can make tomorrow what we will, if wholesomeness is behind our will.

U. S. BOTTLERS
Machinery Co.
4011 N. ROCKWELL ST., CHICAGO

MANUFACTURERS OF
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CONVEYORS
WASHERS & DRYERS
WASHERS
CORKERS
FILLERS

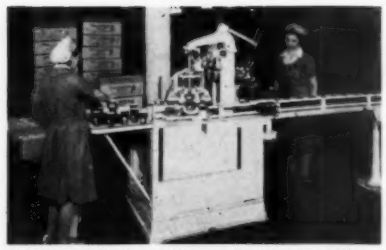
Line Up Your Labelers From The Only Complete Line in the WORLD

How can you be sure your Labelers will fit your production and packaging line-up with the utmost efficiency and economy?

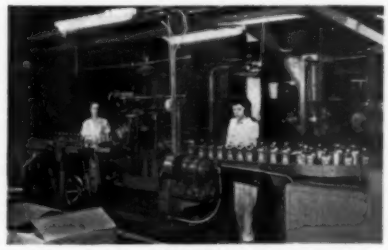
The only sure way is to check with the one manufacturer who builds every type and size of Labeler. Only then can you be certain that the Labeler recommended will be the best Labeler for your individual needs.

The builders of WORLD Labelers have for many years devoted themselves exclusively to the design and construction of automatic and semi-automatic Labelers for every purpose. That is why you are sure to get the best labeling in the WORLD.

May we mail you Bulletins on any or all types of WORLD Labelers?



WORLD Automatic Turret Labelers provide high quality labeling of smooth, fluted or fancy containers at low cost.



WORLD Automatic BEE-LINE Straightaway Labelers apply front or front and back labels and neck labels to round, square, flat, oval or panel containers of all kinds.

WORLD Model S Semi-Automatic Labelers are World's most versatile labeler. They apply front, back, body neck or all around labels to every size and shape of container from tiny samples to gallon jugs.

ECONOMIC MACHINERY COMPANY
WORCESTER • MASSACHUSETTS • U. S. A.

A NEW COLTON ROTARY TABLET PRESS
SERIES 200-25 ROTARY TABLET PRESS

The design of the Series 200-25 Tablet Machine is an outstanding engineering achievement, the culmination of years of experience in building tablet machines. This compact machine incorporates refinements that provide an entirely new standard of performance for this type of equipment.

ARTHUR COLTON COMPANY
2620 East Jefferson Established 1884 Detroit, 7, Mich.

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REPUBLIC FILTERS

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Filtering equipment and media especially designed for the drug and cosmetic industry to attain the desired degree of porosity, sterility and flow rates.

Our laboratory and technicians are at your service.

Catalogue on Request

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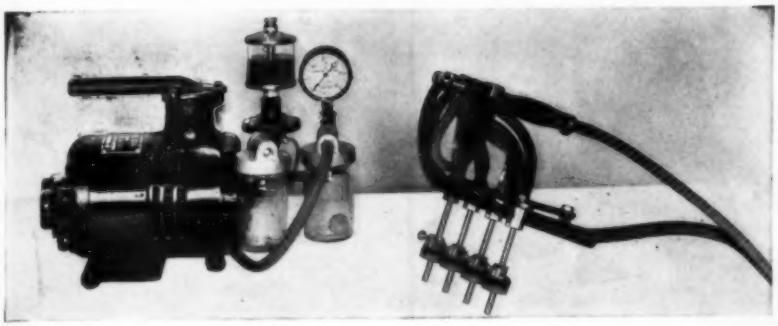
Just the thing For Both Large and Small Bottlers
the HORIX PORTABLE VACUUM FILLER



Write for complete details on this versatile yet inexpensive Horix Portable Vacuum Filler. Prompt deliveries can be made from stock on standard models.

HORIX MANUFACTURING CO.
PITTSBURGH, PENNA.
CONVEYORS *and* FILLERS

This versatile, compact, self-contained unit is ideally suited for filling relatively small lots. It provides dependable, low cost filling for all size containers. Manufacturers who package a number of specialties use the Horix Portable Vacuum Filler when it is not economical to make frequent changes in a standard production line. On account of the speed with which it can be thoroughly cleaned, a wide variety of products can be handled on one machine.

The filler consists of a compact motor-pump unit, with built-in switch, light-weight balanced filling head, overflow jar and necessary hose connections. The high vacuum maintained at the head starts the filling faster. Defective bottles are not filled. Safety features prevent waste of product or damage to pump and motor.

Here's what you'll like about the new

..."HAGERTY HANDY FILLER"

- Durable
- Moderately priced
- Eliminates spilling
- Simple to operate
- Convenient sizes
- Light construction

The most practical hand filler for creams, lotions and liquids.

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Automatic filling and sealing of paper packets is fast and economical. Packets offer many merchandising advantages. Send quantity of your material for test purposes . . . for return to you in packets . . . for report. No obligation. Write, wire or phone for full details.

THE BROWN BAG FILLING MACHINE COMPANY
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West coast representatives:
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for powders, granules, crystals

Kolmar fights

at home . . . on two fronts . . . the domestic and on the far flung outposts.

We can't say much about our war activity where we are doing a minor but "life-saving" part . . . but we can tell you that we are continuing our efforts here at home keeping up the morale of our women-folk.

Manufacturers of Private Brands only

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1260 N. Western Ave., Los Angeles, Cal.

Mr. Richard F. Spicker,
419 West Fifth St., Cincinnati, Ohio

Industry's Books

Lange's Handbook of Chemistry, Compiled and Edited by Norbert Adolph Lange, Ph.D., 2092 pp., Handbook Publishers, Inc., Sandusky, $6.

A number of new tables make their appearance in this Fifth Edition. These are as follows: Periodic Table (Deming); Fammable Liquids; Flame Temperatures; Plastics; Fluorescence of Chemicals, Minerals, and Gems; Water for Industrial Use. All of the subject matter in the previous edition has been retained with the exception of the Table of Suffixes used in the nomenclature of organic compounds. The subject matter of this table has been augmented to include prefixes and symbols, and is now incorporated in the Glossary of Organic Chemistry Nomenclature. The following tables in the previous edition have been extended or completely rewritten: Physical Constants of Organic Compounds; Formula Index to the Table of Physical Constants of Organic Compounds; Melting Point Index to the Table of Physical Constants of Organic Compounds; Nomenclature of Organic Compounds; Organic Reagents for Inorganic Analysis; Common Hazardous Chemicals; Vitamins; Drinking Water Standards; Standard Calibration Table for the Chromel-Alumel Thermocouple; Probable Values of the General Physical Constants; Densities of Aqueous Solutions of Hydrochloric, Nitric, And Sulfuric Acids to Include Corresponding Values of Normality; Trade Names of Chemicals; Two Hundred Year Calendar increased to a Three Hundred Year Calendar. The new tables and extensions of previous tables have necessitated the addition of 174 pages. Perhaps the most important change in this edition is the complete revision of the table of Physical Constants of Organic Compounds. This table has been increased to include 6507 compounds with a corresponding list of more than 3500 synonyms. Many changes in standing matter throughout the work have been made to keep the information accurate and up-to-date.

The Drug And Cosmetic Industry, by Clare Olin Ewing, B.S., M.S., Chief Chemist and Associate Director, Department of Research and Technology, United Drug Co., 24 pp., paper bound, Bellman Publishing Co., Boston, 50c.

The manuscript for this monograph was written by a qualified expert and was carefully designed to supply the following factual information under normal conditions: Personal qualifications required for engaging in the work; scholastic training needed; complete analysis of employment opportunities; remunerations received; chances for advancement; frank statement of advantages and disadvantages; possibilities for both men and women in the vocation or profession. It is one of a series of seventy-five occupational booklets used in connection with guidance activities wherever general counseling work is conducted and for individual reference purposes in the choice of a career.

Synopsis Of Tropical Medicine, by Sir Philip Manson-Bahr, M.D. Senior Physician to the Hospital for Tropical Diseases, Royal Albert Dock and Tilbury Hospitals, 224 pp., Illus., The Williams & Wilkins Co., Baltimore, $2.50.

As the name implies, this is essentially a condensation of the author's well-known textbook on tropical diseases. This work has been undertaken in response to numerous requests to provide a guide to tropical medicine in a condensed form, suitable for medical officers in the Armed Forces and others whom the exigencies of the moment call to the tropics. Though not designed in any way to encroach upon standard textbooks on tropical medicine, it is hoped it will provide adequate information in convenient compass. The material has been brought up-to-date and the revision has been undertaken as a contribution to the war effort.

Infrared Spectroscopy, Industrial Applications and Bibliography, by R. Bowling Barnes, Robert C. Gore, Urner Liddel, and Van Zandt Williams, Stamford Research Laboratories, American Cyanamid Co., 236 pp., Reinhold Publishing Corp., New York, $2.25.

This work is presented as a partial answer to the increasing demand for information concerning the industrial applications of infrared spectroscopy. Infrared spectroscopy has proved a powerful tool in solving problems of organic chemistry and finds a widening field in industry. The theory of infrared absorption and its relation to molecular structure are discussed to provide the essential background for detailed descriptions of techniques useful in analysis. Finally a library of 363 representative spectra of organic compounds taken in the rock salt region of the infrared spectrum is presented for comparison with those obtained from unknown compounds under investigation.

Health For The Having, by William R.P. Emerson, A.B., M.D., Medical Consultant in Physical Fitness for the Aetna Life Insurance Company and formerly for Dartmouth College; President, Nutrition Clinics, Inc., 146 pp., The Macmillan Co., New York, $1.75.

This little book will tell you how to increase your efficiency in both work and play. It will tell you how it has been accomplished by young men and women in school and college, by professional men, and by executives and employees in industry. You will learn the causes of underweight in youth and overweight in maturity, and how they can be most easily corrected. You will learn how most sickness and untimely death can be prevented. This practical little book will help you make a check on your health status.

Hydroxy Citronellal

Hydroxy Citronellal, as every one knows, is practically unobtainable now as it was made from oil of citronella Java which can no longer be obtained because of the war with Japan. Since synthetic menthol is also derived from citronella Java, the shortage developed much sooner than expected. In the last ten years this aromatic chemical has become one of the most valuable ingredients to the perfumer and soap manufacturer, finding a place in such products as lily and lilac and nearly 75 per cent of the perfume, soap and cosmetic perfume compounds. Its chief value in the compound is to impart a flowery characteristic and to enhance the flowery note of not only floral types such as jasmine and lily, but in a combination of floral ingredients. This has always been moderately priced and has therefore been adaptable to use in soaps as well as other medium-priced compounds for cosmetics. Naturally the perfumer is now looking for some substitute for this very valuable aromatic and there are some imitations on the market at present which, to some extent, act as replacements, notably cyclamen aldehyde and alpine violet which have characteristics in odor somewhat similar, but it is the recommendation that, if these are to be used as a replacement, they be reduced with a practically odorless aromatic such as benzyl benzoate, benzyl alcohol, or diethyl phthalate to the corresponding strength. Some hydroxy citronellal has been made from eucalyptus citriadora but the resultant product so far has not yielded an odor comparable to hydroxy citronellal, citronellal, citronellol, geraniol are the other important ingredients of citronella Java and supplies of these materials are becoming very critical with no replacements in view.

Perfumer's Shelf

Constituents of Goldenrod

In studies on the chemical constituents of rayless goldenrod (*Aplopappus heterophyllus*), O. C. Dermer and R. Cleverdon (*Proc. Oklahoma Acad. Sci.* 23:63, 1943) extracted a 225-pound sample of air-dried goldenrod with 95 per cent ethyl alcohol, and a 10 cc. sample was separated from the concentrated extract by steam distillation. The residue from the steam distillation yielded about 40 cc. of tremetol when treated by the procedure of Couch. This tremetol fraction was further fractionated with a Hickman still. On standing, a non-toxic crystalline fraction, probably a terpenoid ketone, separated from the tremetol fractions. The essential oil is mainly a mixture of sesquiterpenes or polyterpenes as shown by chemical and physical tests. A wax was separated from the original extract and subjected to purification processes. This wax melted at about 80° C. and had an average molecular weight of 470. Tests indicate that it consists chiefly of hydrocarbons and alcohols of high molecular weight.

Testing Oil of Santal

A simple, and apparently efficient method for determining the presence of certain adulterants in oil of santal has been described by R. San Martin Casamada (*Wien. Pharm. Wochschr.* 74, No. 30, Suppl. 25, 1941, through *Chem. Abstr.* 38:1840, 1944). He notes that upon mixing santal oil with methylene chloride in the proportions of 1:1 a turbidity arises. Other oils which are adulterants or which are used in compounding require larger amounts of methylene chloride to give similar turbidities. For example, cedar oil requires 5 to 12 parts of methylene chloride, while Gurjun balsam needs 5 to 9 parts of methylene chloride.

Microscopic Examination of Face Powders

As pointed out in an interesting and informative article in *The Perfumery and Essential Oil Record* (35:70, 1944), the examination of finished face powder and of basic materials has become increasingly important and exacting as competition has developed. Such examinations serve not only to check the adhesive properties of the powders, but also give data on the ultimate fineness and absorption of perfume and color. Without some form of examination under magnification, much is left to chance and speculation and the higher the magnification used the greater the amount of information obtainable. For general purposes, an inexpensive microscope with low and medium powers will suffice, unless more exacting demands are made on texture fineness.

Earlier methods requiring elaborate preparation and mounting of specimens has been largely abandoned. Just prior to the war, there was introduced a specialized form of direct-contact microscope, of Swiss origin, which required only that the pulverized material be strewn on a piece of paper and examined up to a mangnification of about 70 diameters. Other methods for direct examination of powders have been developed. For example, one French worker used a special grade of black paper upon which all samples of the more or less white face powders were spread. With such a background sufficient contrast was obtained to determine the character and tendency to sharpness among the fine particles. This extremely practical and simple device is highly efficient; permitting the examination of a large number of samples within a few minutes. Such a procedure also reveals how the color has been absorbed and gives a useful criterion of how the shades and tints had been manipulated. With microscopic procedures it is also possible to check the sifting of powders. All features of the sifting can be followed with a high degree of precision by stopping it at different stages and making the test.

For research purposes, more advanced microscopic instruments will find increasing use. The employment of ultraviolet light and special filters is discussed. The article also considers the potentialities of the electron microscope and a brief description of the working principles of this instrument is given.

Thyme Oil

Thyme oil, used medicinally, writes J. Small (*Food* 13:13, 1944) is distilled from the leaves and flowers of *thymus vulgaris*. It contains about 45 per cent of thymol and cavarcrol, besides cymene, l-pinene, borneol, linalool and bornyl acetate. Thymol also occurs in species of *Ocimum* and in *Monarda punctata*.

New Odor Types

The trend in new odor types for various perfumes and cosmetics has been greatly affected by the lack of certain raw materials which were readily available in peacetime but are now unavailable. The essential oil and aromatic chemical industry has done a marvelous job in supplying increased demands by the perfumer and soap manufacturer but if relief from primary sources is not forthcoming by fall, a radical change in odor types will have to be made or some products discontinued for the duration. To cite an example, hydroxycitronellal, citronellol, and geraniol are practically unobtainable, since the main source of oil of citronella Java was the Dutch Indies. Limited quantities of a similar oil are obtainable from new projects in Guatemala and Honduras but the supply is extremely limited. Therefore it will mean that further changes will have to be made in such products as rose, gardenia, lily, apple blossom and certain bouquets containing these products. Unfortunately, these are not the only items affected. Such items as the synthetic musks are for the moment unobtainable due to priorities on certain raw materials and supplies are becoming very scarce. Last but not least, the labor shortage in the aromatic chemical plants has caused a decided drop in production and an increasing delay in deliveries. There are rumors to the effect that we may receive some ylang ylang, vetivert and geranium from Madagascar and the Bourbon Islands, but until these and other prospective materials arrive, the perfumer will find it necessary further to improvise his formulas with artificials and to date he has, in our opinion, done a marvelous job. When he reaches the "end of the rope," new types will have to be perfected with available materials.

Peppermint Oil Emulsions

In response to an inquiry regarding an emulsion of peppermint, a writer in the *Chemist and Druggist* (141:404, 1944) suggested that the following gives a satisfactory emulsion, which separates only after long standing and is easily diffusible on shaking:

Oil of peppermint	**10 parts**
Tincture of quillaja	**5 parts**
Glycerine	**10 parts**
Water, to make	**100 parts**

Also included was the following creamy emulsion, which is easily made in the mortar:

Oil of peppermint	**10 parts**
Tragacanth	**1 part**
Glycerine	**10 parts**
Water, to make	**100 parts**

Nail Polish Dermatitis Increasing

Although several reports dealing with allergic eczema due to contact with nail polish have appeared in the medical literature during past years, W. I. Dobes and P. N. Nippert (*Arch. Dermat. & Syph.* 49:183, 1944) find that recently there has been an increase in the number of cases encountered. As has been the finding of other investigators, these dermatologists observed that nail polish is one of the most frequent causes of dermatitis of the eyelids, but that other areas of the body are often involved. Thus, of 90 cases studied by the authors, in 22 only the eyelids were involved, in 28 the eyelids, chin and neck were involved, in 29 the dermatitis appeared on areas of the face other than the eyelids, while in 11 instances the skin disorder appeared on areas of the body other than the face and neck.

The dermatitis has been attributed to various components of the nail polishes. Some dermatologists feel that the clear lacquers and the dyes are the causes, while others blame the newer synthetic resins that are being used. Dobes and Nippert found that plasticizers, solvents and any other ingredient can be the offending agent, but that the solvents are the usual irritating factors. Sensitive persons who insist on wearing nail polish should be tested with several brands of both colored and colorless nail polish and it has been noted that most likely some brand will be found that the patient will tolerate.

Sage Oil

In a descriptive and illustrated article, J. Small (*Food* 13:43, 1944) points out that sage, the leaf twigs from *Salvia officinalis* and *Salvia lavandulifolia*, are used for flavoring and to some extent medicinally. The leaves yield 1 to 2.5 per cent of a volatile oil containing salvene and its esters, as well as pinene, camphor, cineol, borneol, thujone and sesquiterpenes.

Oil of Roman Chamomile

A comprehensive survey of oil of Roman chamomile has been presented by E. Guenther in the *Chemurgic Digest* (2:206, 1943). According to this authority *Anthemis nobilis* L. (fam. *Compositae*), the so-called Roman or English chamomile, is a perennial herb, native to Europe where it is cultivated for medicinal purposes in Belgium, France (Departement Seine-et-Oise), and England. In the United States, Roman chamomile is occasionally found wild; furthermore, as an ornamental plant in gardens, especially along borders. However, the author doubts whether Roman chamomile can be produced successfully in this country, because of the considerable hand labor involved.

Freshly distilled Roman chamomile oil possesses a light blue color which, under the influence of air and light, gradually changes to green and brownish yellow. The odor of the oil is pleasant, strong and aromatic; the taste bitter and somewhat acrid. The limits for the constants of this oil, as given in the standard test of Gildemeister and Hoffmann, are as follows:

Specific Gravity at 15° C.	**0.905 to 0.918**
Optical Rotation	**−1° to +3°**
(In most cases it is impossible to determine optical rotation because of the dark color of the oil.)	
Refractive Index at 20°C.	**1.442 to 1.457**
Acid Value	**1.5 to 14**
Ester Value	**210 to 317**
Solubility	**Soluble in 5 to 10 volumes of 70% alcohol, sometimes with turbidity. Soluble in 1 to 2 volumes of 80% alcohol and more, sometimes with turbidity and separation of paraffins.**

Nearly one hundred years ago, it was recognized that angelic acid is the main constituent of Roman chamomile oil and later it was found that this acid does not occur in the oil in the free form but esterified with butyl and amyl alcohol. Some other investigations of the acids in the saponified oil and examinations of the fractions of the unsaponified oil have revealed a number of new constituents including; an ester of isobutyric acid, butyl ester of angelic acid, isoamyl ester of angelic acid, an ester of tiglic acid, an ester of hexyl alcohol, methacrylic acid, anthemol, azulene and anthemene.

Guenther notes that oil of Roman chamomile is very useful as a flavor-agent in fine liqueurs, especially those of the French type. In perfume compounds the oil also finds some application; it imparts soft, concealing notes.

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According to British Patent 550,746, granted to M. Baker and L. Freedman, a composition for use in the permanent waving of hair contains:

Sodium sulfite	**50 Gm.**
Sulfonated castor oil	**6 Gm.**
Ammonia	**8 Gm.**
Glyceryl monostearate	**10 Gm.**
Water, to make	**320 Gm.**

New Bronchodilators

At the recent meeting of the American Chemical Society in Cleveland, N. Levin and H. G. Kolloff discussed a new series of compounds called physiologically active indanamines, which appear to be efficient bronchodilators and hence of possible value in asthma due to allergy or respiratory infections. Some 20 indanamines were synthesized, 10 of them tested, and one was found to be the most active. This compound is chemically, 2-benzylaminoindane hydrochloride, and is made in a series of chemical reactions starting with indene. The value of the new indanamines is that they do not increase blood pressure, a drawback in the use of epinephrine and ephedrine heretofore as bronchodilators. Further clinical testing is necessary before full evaluation of this new agent can be made.

Treating Vincent's Infection

In a discussion of the treatment of Vincent's infection (trench mouth) in the armed forces, F. R. Brooks and W. A. Wilson (*J. Am. Dent. Assn.* 31:-640, 1944) present formula for a preparation called "viogen" which plays an important part in their procedure for treating this condition. The formula for viogen is:

Brilliant green	**1 Gm.**
Crystal violet	**1 Gm.**
Alcohol (50%), to make	**100 cc.**

This dye solution is applied following gross scaling and a thorough spraying with hydrogen peroxide. The viogen is applied to the dried gums and teeth, and because of its low surface tension, penetrates evenly into the gingival crevices and interproximal spaces for a considerable distance.

Burn Therapy Revisions

In 1942 the Department of Health for Scotland issued a Memorandum detailing the then standard methods for treating burns. Increasing experience and modified views have necessitated changes in these older procedures and a revised edition of the Memorandum has been issued. Some of the changes, as outlined in *The Pharmaceutical Journal* (152:92, 1944), are given below:

Tannic acid.—When applied to a large burned surface, tannic acid can be absorbed into the circulation in quantities sufficient to cause general poisoning and may produce severe necrosis of the liver; the degree of liver injury is more marked than obtains after treatment by other local applications. The use of tannic acid as a coagulant is, therefore, no longer recommended.

Sulfonamides.—A sulfonamide, especially sulfanilamide, when powdered on to a large burn is quickly absorbed and within a few hours may give a toxic concentration in the blood. The prolonged local use of sulfonamide-containing applications means, in effect, the prolonged administration of sulfonamides and is, therefore, dangerous. Accordingly, large burns should not be powdered with sulfonamides nor treated with emulsions or creams containing more than 1 per cent sulfonamide. For burns of moderate or small extent no more than 10 Gm. of sulfonamide powder should be applied at one time and emulsions or creams should not contain more than 3 per cent sulfonamide. Local applications of a sulfonamide should not be repeated more often than once in four days nor continued for a period longer than two weeks. If sulfonamides are given locally they should not be given concurrently by mouth.

Propamidine.—This has been employed recently as a local application to burns in a strength of 0.1 per cent in an ointment or jelly base; owing to its necrotic action on living tissue it should not be used in higher concentration. Its use should be restricted to burns of small extent because there is a risk of poisoning by absorption from large raw surfaces.

Dyes.—Poisoning by absorption of dyes is possible when they are applied to very large burns and in concentrations higher than 0.5 per cent. Proflavine is the least poisonous and is probably always safe when used in 0.1 per cent strength.

Silver Nitrate.—Silver nitrate (10 per cent) can be injected in relatively large quantities in animals without producing general poisoning. It seems unlikely that its application to a burn will cause poisoning by absorption.

Penicillin.—Penicillin appears to be an ideal bacteriostatic agent of low toxicity for local use in the treatment of burns. Supplies, however, are not yet available for general use.

Preparations, doses, and strengths of coagulants, antiseptics, etc., mentioned in the text include the following:

Strengths of Coagulating Solutions

Silver nitrate	**5 or 10 per cent**
Crystal violet	**0.5 per cent**
Euflavine	**0.1 per cent**

Triple Dye Compounds

Equal parts of aqueous solutions containing:

Crystal violet	**0.5 per cent**
Brilliant green	**0.1 per cent**
Proflavine or euflavine	**0.1 per cent**

Castor Oil Emulsion

Twenty-five per cent castor oil in water emulsified by Lanette wax SX and containing 1 per cent sulfanilamide. The emulsion should be sterilized in an autoclave and re-emulsified by shaking.

Rutin Extraction

In reporting on the Chemurgic Conference held in St. Louis this spring, F. J. Van Antwerpen (Chem. & Eng. News *22:518, 1944*) *notes that a new process has been perfected for extracting rutin, a glucoside drug, from certain types of tobacco. Rutin is of value in treating diseases associated with capillary fragility, or tendency to hemorrhage. This new drug, which came out of the Eastern Regional Laboratory, will probably become important in preventing retinal hemorrhage and apoplexy resulting from high blood pressure.*

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Bentonite Preparations

In an article in *The Archives of Dermatology and Syphilology* (49:264, 1944), H. Goodman points out that the field of utility of bentonite in formulas intended for the care of the skin and scalp in health and in disease has not been completely explored. The detergent ability of bentonite is known, and it has become an ingredient of some types of soap. It may yet be found valuable in soap pastes with the sulfonated oils, as an ingredient in neutral or nearly neutral brushless shaving creams and pomades, as a substitute for gelatin in adhesive and occlusive dressings and as a dry powder dressing for moist areas of the skin and the scalp.

Bentonite previously admixed with any water-soluble nonionizing liquid, such as alcohol or glycerin, can be easily dispersed in an aqueous medium. Advantage is taken of this characteristic in the preparation of certain dermatologic and cosmetic items.

According to this noted dermatologist, bentonite may be added to coal tar, thoroughly mixed and applied to the affected skin or scalp. Triethanolamine may be added to the mixture. Suggested formulas are:

	Gm.
Coal tar	50
Bentonite	50

Agitate before application to skin or scalp.

	Gm. or Cc.
Coal tar	50
Bentonite	25
Triethanolamine	25

Agitate before application to skin or scalp.

A base material serving as a paste may be formed with bentonite, as in the following formula:

	Gm. or Cc.
Bentonite	25
Zinc oxide	25
Cottonseed oil	25
Hydrogenated cottonseed oil	25

Intimately mix the powders and the fat and fat-like products before incorporating and finely dispersing any powder.

Propylene Glycol "Tinctures"

Having previously experimented with propylene glycol as a solvent of certain vegetable drugs, vegetable coloring matter and fruit juices, and as a preservative, J. Ral (Pharm. J. *152:122, 1944*) *decided to prepare a series of "tinctures" and as far as possible to ascertain the solvent properties of the glycol as compared with those of alcohol. He selected five vegetable drugs, e.g. rhubarb, calechu, senega, balsam of tolu, and opium, the active constituents of which differ in their chemical properties, extracted them with propylene glycol, and with alcohol, determining as nearly as possible the amount of active principle in each of the extractions.*

From these experiments it appears that propylene glycol satisfactorily extracts drugs containing tannins, saponins and anthraquinone derivatives, in the last instance being superior to alcohol. It is also a good solvent of the morphine content of opium. It is not a good solvent of balsam of tolu, and is inferior to alcohol in extracting the acidic constituents. All the solutions made with propylene glycol have remained absolutely clear and free from deposit for two months except that of balsam tolu, which turned cloudy within twelve hours of its being filtered.

Enteric Pill Coating

In discussing the requirements and testing of pill coatings resistant to gastric juices, J. Brenner (*Pharm. Acta Helv.* 18:283, 1943) proposes the use of an enteric coating of:

Shellac	25 parts
Castor oil	5 parts
Alcohol	25 parts

Experiments indicate that the kind of coating and its thickness influence the degree of resistance to gastric juices. He finds that the coating should be 26 to 39 microns in thickness.

Capsule Filling Hint

Where it is required to place mixed powders in capsules, a suggestion offered in the April 17 issue of the N.A.R.D. Journal *may be of interest. Use crystals where it is possible, such as for aspirin and phenacetin, when they must be triturated in a mortar. When powders fluff around in the mortar and become electrified, such as cinchophen and amidopyrine, use ten or twelve drops of pure alcohol and the mixing will be accomplished in one-third of the usual time. This method may be used with nearly everything but glandular products.*

Air Disinfection

Recommendations regarding the physical characteristics of antiseptics used in aerosols for the disinfection of air are given by a group of workers at the National Institute for Medical Research (*Nature* 1:20, 1944). They suggest that, in addition to bactericidal activity and lack of toxicity to man they should have: (*a*) low vapor pressure, so that it is possible to work near to saturation; (*b*) water solubility, so that the bactericide will condense readily on to moist particles; (*c*) stability at room temperatures, that is, freedom from liability to oxidation or other chemical decomposition, or to absorption by walls and textiles.

Tests made with the vapors of lactic acid, mandelic acid, and triethanolamine gave good kills of the organisms of sprayed saliva at concentrations of 10, 8, and 150 mg. per cubic meter respectively. With lactic acid, kills of more than 90 per cent in five minutes were obtained at relative humidities ranging from 40 to 85 per cent.

Fungal Bacteriostats

The results obtained by W. H. Wilkins and G. C. M. Harris (Brit. J. Exper. Pathology *24:141, 1943*) *in continued investigations into the production of bacteriostatic substances by fungi appear to indicate that the Aspergilli and Penicillia are the most promising of any fungi yet tested. It is believed that, except for these two genera, the Phycomycetes, Ascomycetes, and Fungi Imperfecti are, under present conditions of study, less likely to produce bacteriostatic substances of any significance. The tests also indicated that results with any given species are not conclusive.*

Cleansing Agent Patent

In a modification of a previous patent, W. Franklin describes an interesting cleansing agent for use in washing and bathing. According to the new specifications, as given in British Patent 559,137, a typical cleansing agent is prepared from:

Water	1 gal.
Sulfonated castor oil	480 cc.
Oleic acid	96 cc.
Sodium ortho-silicate	10 oz.

For personal use, and particularly in the bath, about one tablespoonful is used to each gallon of water. When used in the wash-basin, the hands should first be wetted with water and then a few drops of the detergent applied.

Measuring Small Particles

Of interest to powder manufacturers, the Fisher sub-sieve sizer, for measuring the size of particles too small to be measured by sieves, has recently been improved. According to a note in Industrial and Engineering Chemistry, Analytical Edition (*16:278, 1944*), *operation has been simplified and a calculator chart provided to make operation easy. The instrument consists of an air pump, air-pressure regulating device, precision bore sample tube, double range flow-meter, calculator chart, and accessory equipment. The range of the instrument is said to be from 0.2 to 50 microns. Made by Eimer & Amend.*

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Chlorellin: New Antibacterial

For several years it has been known that cultures of *Chlorella*, of the algae family, produce and accumulate a substance that tends to inhibit further multiplication of the cells. Recently, in *Science* (99:351, 1944), two collaborating groups of workers in California reported methods for making extracts containing this growth-inhibiting substance and have tested the crude extracts for antibiotic activity against other organisms. "Chlorellin," the name given to the active substance in this extract, has been found to possess antibacterial properties against both Gram-positive and Gram-negative organisms, such as: *Staphylococcus aureus, Streptococcus pyogenes, Bacillus subtilis, Bacterium coli and Pseudomonas pyocyanae.* Other tests indicate that in addition to its growth-inhibiting properties, Chlorellin may also be bactericidal, and that this activity is but slightly inhibited in the presence of serum proteins.

According to the report, chlorellin is unique in the constantly growing list of antibiotics because, since it is derived from an autotrophic organism, its production does not entail the use of expensive and troublesome organic culture media; only inorganic salts, carbon dioxide and light being required. Organic solvents, used for extracting the cultures, are removed *in vacuo*, and the crude extract is available as a brown mass containing chlorellin. Studies on the range of biological activity of this substance and of its chemical nature are still going on.

Penicillin for Gonorrhea

Although penicillin has been employed to treat sulfonamide-resistant gonnococcic infections in men, A. Cohn, W. E. Studdiford and I. Grunstein (J.A.M.A. 124:1124, 1944) are the first to report its use in treating gonorrhea in women. Of a group of 44 women who had failed to respond to sulfathiazole therapy or who were sensitive to the sulfa drugs, 43 promptly became bacteriologically negative after treatment with penicillin and remained negative during the follow-up period. As a rule, this reversal from positive to negative took place within twelve hours following the termination of penicillin therapy. Results in this series indicates that a total dosage of 75,000 Oxford units of penicillin appears to be satisfactory in the treatment of sulfonamide resistant gonorrhea in the adult female. This therapy may be completed within a period of six hours. Despite the rapidity and efficiency of the treatment, no toxic effects due to the administration of penicillin were observed.

Sulfa Dermatitis and Sensitivity

To the growing number of cases of sulfonamide dermatitis resulting from the local application of sulfa drugs may be added those in the report of B. C. Tate and I. Klorfajn (*Lancet* 1:39, 1944). They found that 55 of a total of 2,280 admissions to the skin department of a military hospital were cases of sulfonamide dermatitis produced by local applications of these drugs. After a period of sulfonamide application to some skin disease or minor injury an irritating dermatitis appeared. At first it was confined to the area under treatment ("primary eruption") and in 2 cases it remained so localized; but, in the rest, other regions, to which no sulfonamide had been applied, became affected ("secondary eruption"). The secondary eruption usually had the distribution commonly seen in sensitization to other chemicals. The dermatitis was always eczematous and constitutional symptoms were commensurate with the severity of the eruption. Various tests showed that patients sensitized to one of the sulfa drugs are sensitive to other members of this group. Indeed, sensitization may be so intense as to preclude subsequent administration of these drugs for other diseases. The authors conclude that topical sulfonamide therapy for skin diseases and minor injuries is unjustifiable. It should be reserved for cases in which withholding it might endanger life or lead to deformity.

Reports such as the above make very pertinent the intradermal test for hypersensitivity to sulfonamides developed by W. B. Leftwich. In the *Bulletin of Johns Hopkins Hospital* (74:26, 1944), this worker describes a method by which positive skin tests may be obtained in patients who have shown hypersensitive reactions to the sulfonamide drugs. The material used for the skin test consisted of serum obtained from patients who were receiving a sulfonamide therapeutically and contained a drug level of from 2 to 25 mg. per hundred cubic centimeters. This skin test is simple to perform and easily interpreted and was found reliable in the diagnosis of drug sensitivity in 28 out of 30 cases of drug reactions. It is hoped that the test may be useful in the differential diagnosis of drug reactions and perhaps as a precautionary measure before starting sulfonamide therapy of patients who have previously received one of these compounds. The fact that positive skin tests may be so consistently obtained in sensitive persons is additional evidence that drug sensitivity is an allergic reaction.

Hyoscine in Seasickness

For many years it has been known that hyoscine and other alkaloids of the belladonna group are quite efficient in preventing seasickness. In England, Holling and his associates (*Lancet* 1:127, 1944) investigated these alkaloids as well as some sedatives and found that hyoscine is still the most generally useful agent for preventing seasickness. Contrary to expectations, it caused no noticeable eye symptoms or drowsiness when given in proper doses. However, it did cause drying of the throat, which made mastication difficult. Atropine and hyoscyamine, also belonging to the belladonna group, had significant effects on seasickness, but were not so effective as hyoscine. Drugs found ineffective were methedrine, sodium hydantoinate, hexobarbitone and phenobarbitone.

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Male Hormone for Cancer Pain

After briefly reviewing the work of others who have used androgens in the treatment of female patients with cancer C. T. Beecham (Am. J. Obst. & Gynec. 46:849, 1943) reports on the results he has obtained from the use of male hormone therapy in six patients with carcinoma of the ovary or cervix. Although in no case did the therapy affect the final outcome, five of the six patients felt subjectively much better after the medication was started, gained in weight and strength and had improved appetite. In two patients in whom severe pain had necessitated sedation testosterone therapy relieved the pain to the extent that no further sedation was required. In only one case was there no favorable response to androgen therapy.

Beecham is of the opinion that this comparatively new method of treatment is definitely worthwhile, since in the majority of cases it almost completely relieves pain and affords other benefits not obtainable from opiates and deep X-ray therapy.

Alcohol vs. Boil Recurrences

It is thought that, in furunculosis, discharges from the initial lesion carry infectious organisms to the surrounding skin and some of these pathogenic bacteria become incorporated into the resident flora of that region. There they live and multiply, perhaps without harm to the patient until by chance some of them are rubbed deeply into a hair follicle, whereupon a new furuncle starts.

Working on this line of reasoning, P. B. Price (*J.A.M.A.* 124:1189, 1944) has obtained good results in preventing the recurrence of boils by the use of 70 per cent alcohol. It has been found that healthy skin can be thoroughly degermed with a solution of ethyl alcohol exactly 70 per cent by weight. This particular preparation is a very efficient germicide which does not damage healthy skin even after long contact. Theoretical calculations indicate that continuous application of this solution with gentle friction for about twenty minutes will completely sterilize the surface of normal skin. Such treatment should not be used on open wounds, nor can it be expected to disinfect draining sinuses or hair follicles already deeply contaminated with a boil-producing organism. The optimum time to employ this treatment, therefore, is in the interval between the healing of the last furuncle and the onset of the next one.

After prolonged application of alcohol the skin feels dry and may itch slightly. Patients should be cautioned not to rub or scratch the region. It is advisable to powder the disinfected area with sterile talcum or zinc stearate. Calamine lotion may be used in selected cases.

Although many patients have been treated in this way during the last ten years, Price presents details on eleven cases. All of these had a more or less continuous succession of deep-seated boils occurring over a period of weeks or months. All had been treated unsuccessfully by other methods. All were followed for two years or more after the alcohol treatment. None had any further boils during this period.

Food Allergies and Vitamin C

Interesting results following the treatment of food allergies with vitamin C are reported by H. N. Holmes in the Annals of Allergy (1:235, 1943). In this study, 27 patients were given 500 mg. of ascorbic acid daily by mouth for one week to saturate the system. During this week, foods associated with the production of allergic symptoms were excluded from the diet. Following this initial period, patients tested their reactions to foods to which they were sensitive by adding them to their diets at two and three day intervals. On the basis of his results, Holmes credits vitamin C therapy of food allergy with 80 per cent success. Allergies to chocolate, milk, cheese, eggs, wheat, oranges, lemons, bananas, tomatoes, asparagus, pork, and fats were overcome. However, Holmes stresses that in every case of food allergy treated with vitamin C, an attempt should be made to reduce the daily dosage of ascorbic acid to the smallest amount which will provide relief of symptoms.

Sulfamerazine Evaluation

Sulfamerazine, one of the newer members of the sulfonamide group of drugs, has received a critical evaluation as a result of the work of D. G. Anderson, C. S. Oliver and C. S. Keefer (*New England J. Med.* 230:369, 1944). In their study, sulfamerazine was administered to 278 patients with bacterial infections. It was found that sulfamerazine exhibited a therapeutic efficiency similar to that of sulfadiazine in the treatment of pneumococcal pneumonia, meningococcal meningitis and erysipelas. However, sulfamerazine was clinically effective in total doses that were on the average one-half to one-third smaller than the amounts of sulfadiazine usually administered for similar conditions.

Toxic reactions to sulfamerazine were in general of the same character and occurred with about the same frequency as those caused by sulfadiazine, but there was a greater tendency for sulfamerazine to produce leukopenia and to cause drug rashes and drug fevers.

As a result of their observations and comparative data, the investigators concluded that sulfamerazine is a potent chemotherapeutic agent and a valuable addition to the sulfonamide derivatives already in general use.

Neostigmine for Arthritis

In a preliminary report on the use of neostigmine in the treatment of muscle spasm in rheumatoid arthritis and associated conditions, P. R. Trommer and A. Cohen (*J.A.M.A.* 124:1237, 1944) observe that favorable responses were obtained in 13 of 19 cases given this drug subcutaneously. Believed to cause a relaxation of muscle spasm, the drug has no demonstrable effect on the pain caused by the joint lesion. However, active as well as passive motion in the affected joints were more easily carried out with less pain. The effect of neostigmine is rapid, within a matter of minutes, and may persist for several days. To obtain a more prolonged effect between injections, the concurrent oral administration of neostigmine bromide is suggested. Atropine or belladonna are given to forestall undesired side-effects.

Vitamins in Gastrointestinal Disorders

L. Pelner, writing in the American Journal of Digestive Diseases (10:414, 1943), believes that the American dietary is remarkably inadequate, showing an especially marked deficiency of vitamin B_1. Added vitamins are advised in malnutrition and starvation; in conditions involving growth, development or repair of tissues; in prolonged or wasting illness; in cases where the total metabolism is increased; in chronic gastrointestinal disorders; in restricted therapeutic diets; and in some skin diseases. There is little ability of the body to store any of the B-complex vitamins. It has been reported that epigastric distress, constipation, flatulence, starch intolerance, alternating constipation and diarrhea, fatigue, bloating, nervousness, anorexia, skeletal pains, and sensitivity to specific foods may be due to vitamin deficiency. The importance of vitamin C in the prevention of gastric hemorrhage due to peptic ulcer seems clear, especially in patients receiving alkalies.

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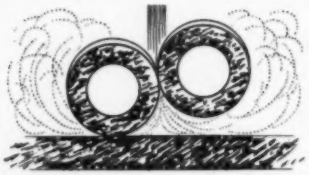

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PURCHASING DEPARTMENT

Wartime Shipments of Vanilla Drastically Curtailed; Sizable Shipment from Madagascar Eagerly Awaited

With wartime shipments of vanilla beans drastically curtailed, this country would be faced by a disastrous shortage of this product if demand had remained at pre-war levels, according to a report read to the Flavoring Extract Association at its annual meeting in New York recently.

There have been only two direct arrivals of vanilla beans from Madagascar and the French islands in the Indian Ocean, formerly the source of 60 per cent of our imports during the past three years, it was said. One such shipment was an accident resulting from a rescue call for shipwrecked sailors in a port where a bean consignment was immediately available.

American importers also were able to get a few small lots from the British, who had seized them from blockade-running French vessels.

A sizable shipment of vanilla beans is now in route to the United States but it would be wise to assume that these beans may prove to be the only ones to reach here from Madagascar during 1944.

Somewhat over 100 tons are believed to be in this shipment but more than half of these have already been sold. They are expected, but no promise can be made of the exact date of arrival.

Vanilla is an important part of the economy of Madagascar and may be said to be the most valuable article they have to export to the United States. The Free French, therefore, appear very anxious to maintain a hold on this business and have adopted a system of price maintenance.

Turning to supplies from other sources, the report indicates that because of a dry season, Mexican bean curers predict the coming crop will be very small, perhaps not more than 175,000 pounds, as against earlier estimates of 275,000 pounds.

Tahiti beans are arriving at fairly regular intervals.

A harvest in the neighborhood of 150 tons of vanilla is expected during 1944 in French Oceania, as the result of increased plantings, but the Government stated in January that there was less than a ton ready for exportation even though large stocks were reported on hand.

It was also pointed out that members of the Flavoring Extract Manufacturers Association could help relieve the present situation by trying to influence the War Shipping Administration to expedite imports of vanilla beans, essential oils and other valuable merchandise from Madagascar by ordering American steamers to call at the island on return voyages after supplying war materials to the far off battle fronts.

MAY PRICE CHANGES

UP

Bois de Rose 60c
Cananga oil Native $1.25
Rectified 75c
Colocynth pulp 5c
Dandelion root 5c
Heliotropin 50c
Lavender $1
Petit grain oil SA 5c
Sassafras bark 3c
Tragacanth gum No. 1 50c
No. 2 25c
Vanilla beans Mex. Whole 75c

DOWN

Almond oil sweet 5c
Belladonna leaves 5c
Benzyl propionate 40c
Cade oil 30c
Henbane leaves 15c
Hydroxycitronellal 25c
Indol $3.50
Lemon grass oil 10c
Mercury metal $15
Orange oil W. Ind. 75c
Calomel 17c
Corrosive Sublimate 15c
Red Precipitate 19c
White Precipitate 16c
Papain powd. pure 20c
Rosemary oil 15c
Vanilla beans Bourbon 25c
Mex. cuts 50c

• Prices quoted in this section were current on the first of this month.

FINE CHEMICALS

The fine chemicals market during the period under review showed broad strength in practically all respects with the exception of mercury and the derivatives of that metal. The mercury market has declined without any interruption over 40 per cent within the past few months. It is estimated that the Metals Reserve Corporation holds somewhere near 100,000 flasks although no official statement concerning the actual amount held by the agency has ever been made. With the spot price of mercury now down to $110 a flask it was only natural that the mercurial salts should be revalued. The market for calomel is now $1.88, corrosive sublimate $1.44, white precipitate $1.98 and red precipitate $2.17.

Menthol

Importers of natural menthol who contracted before April 17, 1944, to purchase this commodity at prices above the ceiling which went into effect on that date, may apply for a special ceiling price on their resales, the OPA announced.

To qualify for a special ceiling on the resales, importers must show that they

(Continued on page 715)

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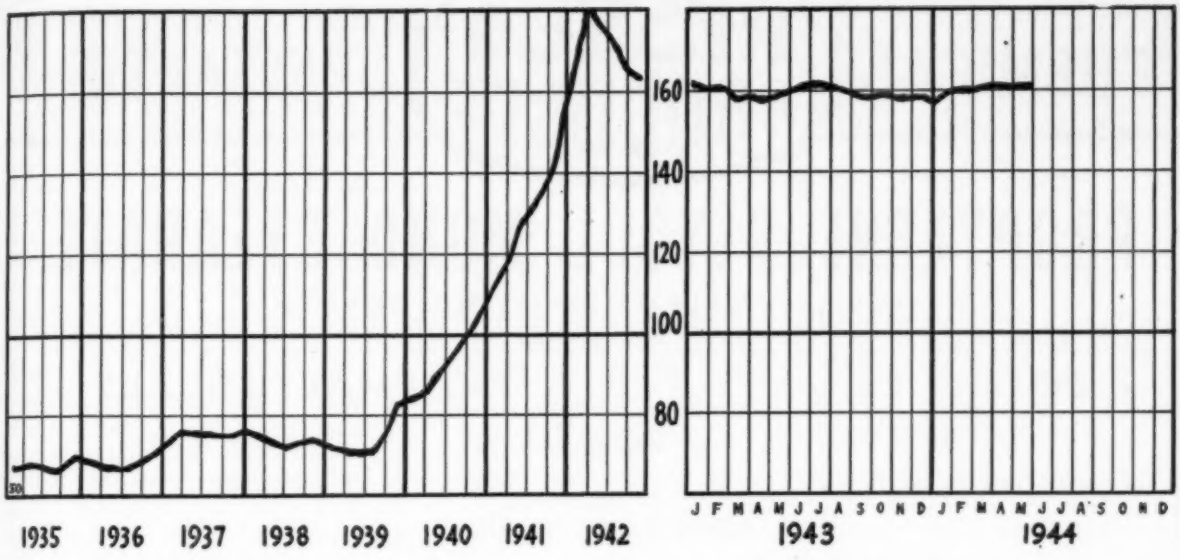
50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for May advanced to 160.8 from the previous 160.6.

Essential Oil Shortage Becoming Increasingly Serious; Aromatic Industry Called Upon for Heavy Supplies

Dwindling stocks of essential oils and the impossibility of replacing them imposed a great task on those who are endeavoring to keep manufacturing consumers supplied be it with the natural, or a substitute material. Production of domestic oils this summer will be a problem. As yet the prospect of obtaining regular shipping space has not improved to a degree which would indicate anywhere near a normal flow of goods from abroad.

Aromatics

The domestic industry has been called upon to supply not only the poundage sold previously, but in addition, has had to take care of all quantities formerly imported. Dwindling stocks of essential oils and the impossibility of replacing them created a new demand for aromatic chemicals which far surpassed in tonnage the quantities formerly imported. The industry met demands remarkably well until the end of last year. Since then it has become increasingly difficult to fill orders.

There is no chemical raw material used by the aromatic industry which is not used by numerous other industries. Many of them are under strict allotment by the War Production Board. For instance, without technical benzaldehyde, now being used extensively in the production of a secret new product for the Chemical Warfare Service, there can be no production of cinnamic aldehyde, cinnamic alcohol, alpha amyl cinnamic aldehyde and methyl cinnamate.

Musk ambrette has been unavailable for some time past. This is due to the fact that meta cresol, indispensable in the manufacture of musk ambrette, has not been allotted to the aromatic Industry.

Without an adequate supply of geranium oil there can be little or no rhodinol. With citronella oil scarce the market for geraniol becomes very tight. Without a free flow of bois de rose from Brazil or elsewhere, there is a shortage in the supply of linalool, and linalyl acetate.

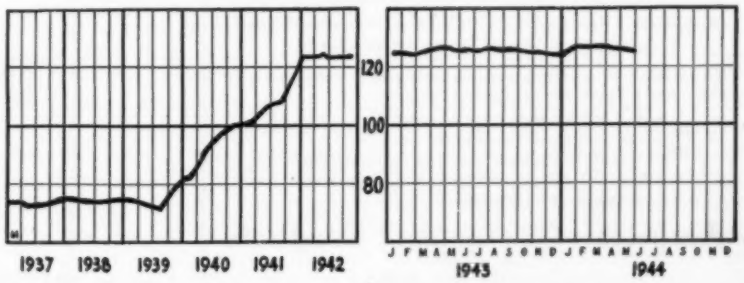
A new process for the manufacture of hydroxycitronellal, using other starting materials than Java citronella oil, promises to eventually relieve the market for this item.

The above stated aromatic chemicals are scarce because of the lack of raw materials. Other aromatic chemicals on the scarce list can attribute their position to the lack of manpower, and also to the difficulty in obtaining replacement equipment.

Eucalyptus Oil

The Australian eucalyptus oil industry produced a total of 110,000 gallons of medicinal oils during 1941 and 1942. Domestic consumption totaled about 20,000 gallons during the same period.

15 Medicinal Chemicals—Weighted Price Index 1926=100



The medicinal chemical index dropped to 127.1 from the previous 127.4. This was occasioned by a decline in mercury to $110 from the previous price of $125.

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Exports on medicinal oils from eucalyptus for the period 1938-43 were approximately 487,000 gallons.

Cananga

Cananga oil turned definitely strong in the spot market. Native oil is offered at from $10 to $12.50 per pound, with the redistilled up to from $11 to $15. Absorption of stocks of low quality lavender flower oil has finally brought a rise in quotations and the available supply of even low ester content material is moderate.

Bois de Rose

The market has moved up to $4.50 to $5 a pound. Stocks on hand have gone into consumption and more merchandise becomes urgently needed. Both cedarleaf and cedarwood oils are in a strong position. Higher prices have failed to affect the primary market to the extent that increased production is expected.

Peppermint Oil

The supply situation on spot continues tight. Holders in the country were said to be seeking sales direct from consumers with the result that the amount of oil obtained by dealers was moderate. A fair sized acreage was reported in the ground and while the season has been something less than normal to date, it is believed that the 1944 crop will reach a total sufficient to relieve pressure during the next consuming season. Production aims at 1,500,000 pounds of peppermint oil, but it is as yet too early in the growing season to predict whether this sizable quantity can be realized.

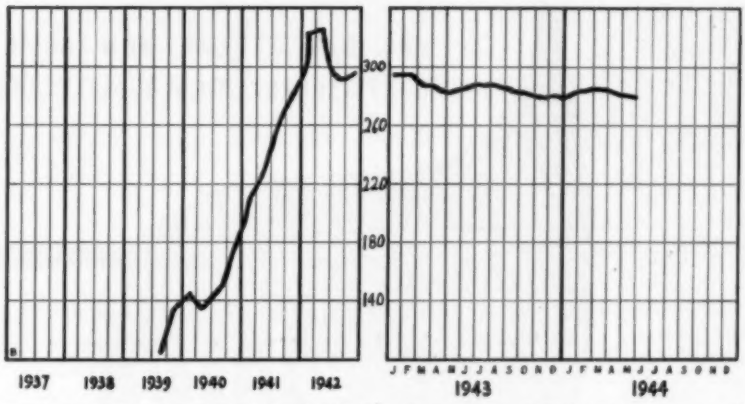
Orange Oil

Domestic suppliers are doing an excellent job in meeting the very fair demand prevailing for this material. California and Florida are contributing steadily to available stocks and prices were declared to be favorable. West Indian oil was reported at $3.75 to $4 per pound, adding to local competition in a market well supplied with several varieties.

Lemongrass

There continued to be a softening of the market as lower cost goods continued to come to this market. Conditions were mostly favorable to buyers for consumption. Prices on spot now range from $1.25 to $1.50 per pound.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index declined to 277.4 from the previous 277.8. This was caused by a drop of 5 cents in the price of belladonna.

FINE CHEMICALS

(Continued from page 711)

had an irrevocable letter of credit established prior to April 17, 1944, pursuant to a contract to purchase natural menthol at a price in excess of the established ceiling. This ceiling is $15 per pound, duty paid, f.o.b. United States port of entry.

This action was taken to provide a method of relief for those resellers who would otherwise entail a considerable loss by selling at the existing ceilings. These ceilings are $16.50 per pound on quantities of 500 pounds or over in original containers and slightly higher levels for smaller quantities.

Although greater quantities of menthol are expected from Brazil over the next thirty to sixty days the demand for this article will continue to exceed the supply. Because of recent price regulations, the long term outlook concerning supply is regarded as extremely cloudy.

Recent price regulations were established, it is believed, to encourage manufacturers in Brazil to complete outstanding contracts, many of which had been made at above ceilings. As soon as these obligations are filled it is difficult to tell what is likely to happen since the maximum quotations, it is pointed out, may not serve as any inducement for producers or manufacturers to extend operations in Brazil, especially in the light of the high prices at which American farmers are permitted to sell peppermint oil.

Alcohol

Industrial alcohol production in the post-war years is expected to range from 250,000,000 to 300,000,000 gallons a year, almost three times normal pre-war output, after emergency alcohol sources such as beverage distilleries are returned to their normal uses.

Of the total production of 611,000,000 gallons in 1944, 337,000,000 gallons are being produced by such emergency war time sources as beverage distilleries, new grain plants, imports, West Coast wineries and converted breweries.

The increased demand for this alcohol will stem from new uses such as a supplementary fuel in internal combustion engines, the use of caustic soda in alcohol solutions to reduce shrinking of wool, and the continuing synthetic rubber program.

Shipments of beverage alcohol, which bulked large in Cuba's January and February exports, were nil during April as a result of the export embargo established on February 26 for the purpose of determining export quotas and allocating them among the several distilleries. There were likewise no shipments of industrial alcohol against the contract signed on April 25 for the sale of up to 20,500,000 gallons thereof to the United States Government.

Vitamins

Synthetic vitamins are selling at all-time record low levels, but manufacturers are unable to accumulate stocks because of a heavy movement of supplies into consuming channels.

Liver oil from stonebass caught in South African waters is from 10 to 20 times as rich in vitamin A as any fish liver oil now on the market, claims the British trade press. Tests were made by scientists from the South African Fisheries Division in collaboration with the Chemistry Faculty of Capetown University.

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Camphor

Influenced by a greater industrial demand for the technical material, distributors of synthetic camphor tablets are falling behind on deliveries. Powdered camphor is in a reasonably good position with shipments going forward to pharmaceutical manufacturers at a good rate. Producers of sulfathiazole U.S.P. and sulfathiazole sodium announced a further reduction in price and now offer 100 lb. drums at $2.65 per pound.

Quinine

Because of an increasingly critical supply condition in quinidine alkaloid, the War Production Board on May 9th tightened restrictions by amending the cinchona bark and cinchona alkaloids conservation order M-131. Under the terms of the amendment, the ultimate consumer now requires a physician's prescription to obtain the alkaloid.

BOTANICALS

This is normally a quiet period in the botanical drug market and dealers report that a slackening in the general demand is already noticeable.

The buying season will soon get under way, however, and dealers are gradually turning their attention to replacements where considerable difficulty is likely to be witnessed over the coming season because of the manpower shortage.

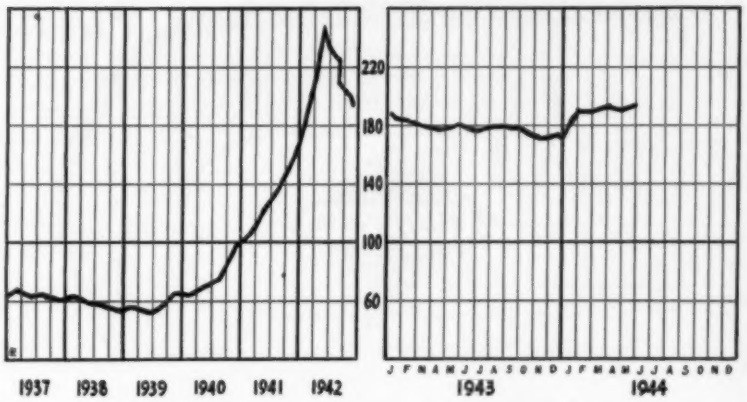
Ordinary or common articles, such as wild cherry bark, sassafras bark and passion flower herb will perhaps prove extremely difficult to obtain because of a shortage of workers.

Waxes

Some addition to spot stocks of carnauba, ouricury and beeswax at least provided manufacturers with raw material if it did not add to the reserves of wax importers. The available raw material increased to the extent of 4,654 bags of carnauba, 555 bags of ouricury, and 627 bags of beeswax.

OPA notified the vegetable wax Industry Advisory Committee on May 16 that it had prepared a price schedule to be inserted in its Maximum Price Regulation No. 264. The new schedule spells out maximum prices American buyers may pay for the products purchased in foreign countries. The prices are those listed by War Production Board in its import licenses required of American buyers, except that OPA has established a single price of 45c per pound, f.o.b. source of origin, for ouricury wax. OPA also stated that the price f.o.b. port of origin for Western Hemisphere sunbleachable crude beeswax will be reestablished at 38c per pound, the prevailing price until December, 1943, when WPB removed the price limitation on this particular wax from its import licenses. On May 16, the Chemicals Bureau of WPB recommended the removal of beeswax and carnauba wax from List C of the General Imports Order M-63. Definite decision in the matter is expected the early part of June.

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oil index advanced to 187.7 from the previous 186.3. Bois de Rose was up sharply to $4.50. Cananga rose to $10 and lavender jumped to $8.50.

Buchu

South Africa has experienced a wartime revival in demand for the Cape herb, buchu. A total of 90 tons of the herb was exported during the past season to the United States and Great Britain, and smaller consignments went to Australia and New Zealand. The price has soared to 3s. per pound, three times the pre-war price. Shortages in supplies of the native Chilean product, soapbark, have kept the price around 195 to 200 pesos per 46 kilograms of packed material.

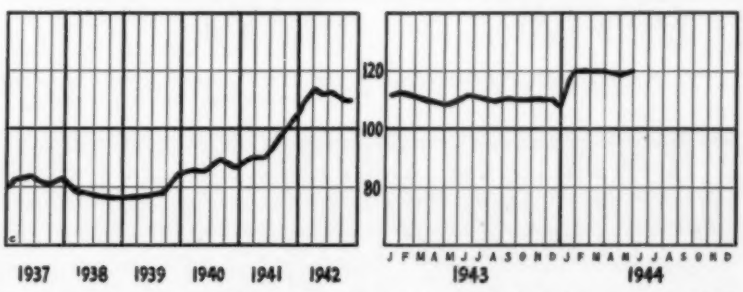
Gums

Although approximately 1,269 bags of gum karaya were recently added to available supplies, the over-all picture remains firm as the result of a continued heavy demand.

Small unsold lots of Sumatra benzoin are being reserved for the regular consuming trade. Quotations are entirely nominal in the absence of offerings.

Conditions in the gum arabic market seemed to favor buyers. Although dealers continued to name 13c per pound for sorts the market has turned slightly unsettled and there was talk about the possibility of shading that figure.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index advanced to 113.5 from the previous 112.6. Gum tragacanth No. 1 was higher at $4.50.

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LINDEN FLOWERS, with Leaves
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MARJORAM LEAVES
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OAK MOSS
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Postwar Medicinals

(Continued from page 649)

continued conservation where possible. Since our program for rubber production promises to be a long and sustained one unless a new method of producing butadiene is found, it would appear that conservation of alcohol still remains the order of the day for a long time to come.

With the growing production schedule for penicillin calling for lactose as a culture media and the acute demand for milk powder by the Armed Forces, milk sugar for medicinal and other uses has been subjected to closely controlled allocation. Here again it would appear problematical as to whether a rapid return to normal supply would occur in the event of termination of the war, since the demand for penicillin will unquestionably be in astronomical quantities and the lag in time for return in part of the Armed Forces must necessarily be gradual—not to mention otherwise the increasing quantities of milk powder required for relief of starved nations.

Hence, it would appear that the solution of the lactose shortage may be a long drawn-out one.

With the recent announcement of the synthesis of quinine by Doctors Land, Woodward, and Doering of Cambridge, Mass., has come the realization of a dream envisioned by many scientists dating back as far as 1868.

While it may be too early to evaluate the immediate effects of this most important discovery in the medicinal field, it seems that its effect upon those sources from which cinchona is being and has been derived will be most profound. Likewise it holds promise of relief from an acute shortage of this important drug so vitally needed in the war effort.

Should it not therefore seem logical to assume that other derivatives of the cinchona alkaloids may eventually be produced synthetically.

Likewise, we find continued shortages of vitamin A and nicotinic acid in addition to ascorbic acid. The uncertainty of allocated quantities of these factors raises the problem of formulation especially where polyvitamin combinations are considered. Looking to a continued extraordinary demand for these important vitamins for rehabilitation of starved nations and for the Armed Forces as well, it would appear that a return to normal supply may be considerably delayed.

Aside from the exceptions mentioned in the foregoing, it is to great credit of both the N. F. Committee and the U. S. P. Revision Committee that in common interest of war effort so many changes and so many new items became officialized in such a short time. The changes that have become official as a result of war shortages or to expedite the war effort were in the main so logical and well conceived that it leaves little for one but to conclude that their continuance will be generally accepted.

The recent issuance of a suggested monograph on menthol by the U. S. P. Revision Committee proposes

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the inclusion of racemic menthol. This variety of menthol known as dl-menthol can be produced synthetically by American industry from various crude materials. Its ultimate recognition by the Pharmacopoeia will now assure complete independence from natural menthol derived from Japanese sources, and provide opportunity for American manufacturers to extend the production of this important material synthetically. As such production develops we would expect a broad changeover to the use of the racemic type on account of the apparent economy of production and its equivalent value to natural or laevo menthol.

As to what extent penicillin will supplant the sulfas or other therapeutic agents at this time would be a presumptuous prediction to make since the reports of its application and scope of use are still too much in the field of clinical research to warrant more than the assumption that in the future this drug will undoubtedly find broad and vitally extensive application. Since the clinical study of this remarkable drug will involve researches over many months and even years, would it not seem reasonable to assume that its use will to a considerable extent be supplementary in instances where sulfa drugs and other therapeutic agents have failed, and conversely may not the sulfa drugs supplement the action of penicillin and in their combined action become a more effective weapon to disease than either alone.

More and more, researchers are discovering deficiency disorders directly traceable to lack of nutritional factors and even small traces of mineral ingredients. Conditions such as reported by Dr. Tom Spies of the Hillman Clinic at Birmingham, where such deficiencies existed in individuals over many years due to unbalanced diet; where persons with malnutrition have a number of deficiency diseases operating simultaneously and where early recognition of and diagnosis of such deficiencies have been successfully restored by specific vitamin therapy and supplemented by a balanced diet. More recently have such researches established the close relationship between malnutrition and infection, and also the influence of malnutrition in mental and nervous disorders.

"The Committee on Diagnosis and Pathology of the Food and Nutrition Board has reviewed material reported in widely scattered journals on the state of nutrition of the people of the United States. An appreciable percentage of diets fail to meet more than 50 per cent of the recommended daily allowances of the Food and Nutrition Board, but many more diets are deficient by less than 50 per cent. This widespread prevalence of more or less deficient diets is associated with a high incidence of deficiency states, largely mild in intensity and gradual in its course. The problem thus created is both preventive and corrective. For prevention, production of sufficient food must be maintained and better distribution is required; judicious enrichment of appropriate foods may be advisable, and dietary education should be intensified and extended. For correction there is need for skill in detecting deficiency conditions and improved procedure for the

treatment of such conditions. . . . . The evidence now available, incomplete though it may be, leads to but one conclusion: that 'there is a real difference as measured in terms of growth development and general health record between optimum and just adequate nutrition; and that every practical effort should be made to apply this knowledge in the interest of human welfare'."

"Gallup Poll Shows Americans Neglect to Eat Proper Food"—"45% never eat fruit, 25% shun vegetables, 34% drink no milk."

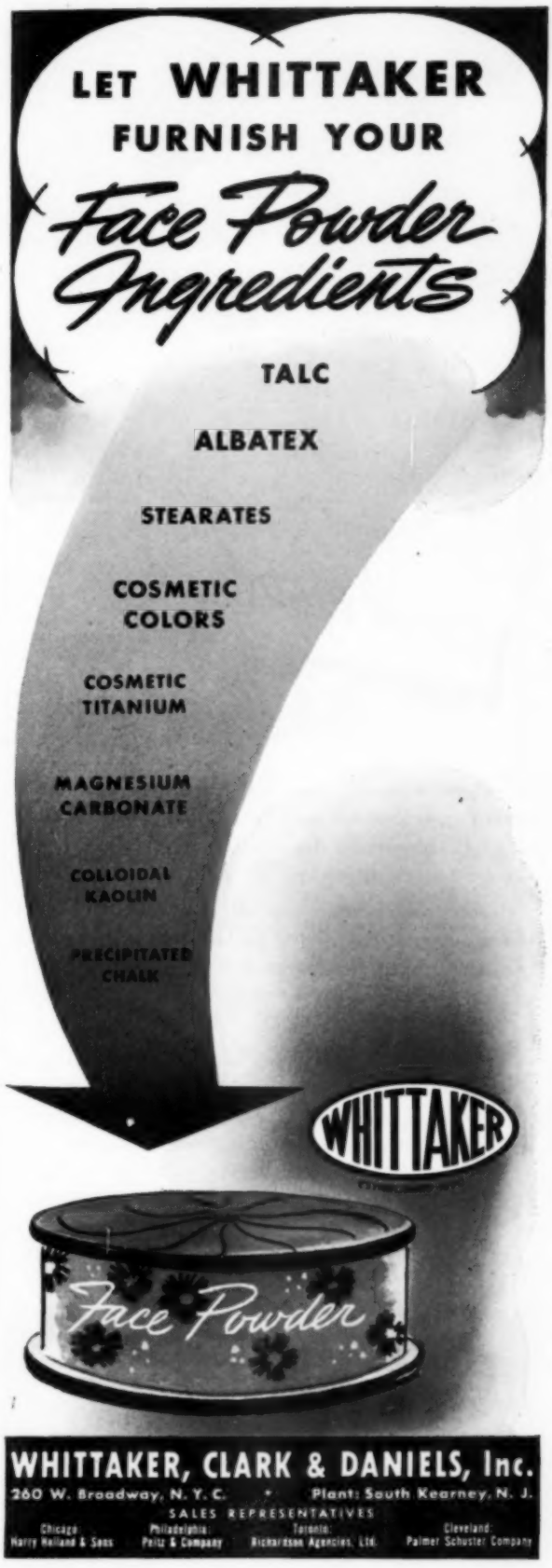
Food Recommendations	*How adult Americans live up to them*
Fruit and raw greens: tomatoes, citrus fruits or juices, raw cabbage, or salad greens	45% had none
Eggs: 1 a day	48% had none
Milk and or cheese	34% had none
Vegetables: leafy green or yellow	25% had none
Meats: meat, fish or poultry	12% had none
Other Vegetables (inc. potatoes) or fruit	8% had none
Cereals or Bread: whole grain or enriched	3% had none

Here we have a blending of viewpoints of the physician, of the nutritionist, of the biologist, the chemist, and the food technologist—all working in a common effort to unravel the truths concerning food-nutritional unbalance, and deficiency conditions. In the light of what has been uncovered already in this field and the resulting broadening of the field of distribution and usage for vitamin factors such as we see in food enrichment and in newer pharmaceutical products, one can but conclude that continued expansion in this field is inevitable. Likewise may we look to the gradual displacement of many of the earlier type medicinal products as the field of knowledge in nutritional therapy broadens.

In the field of packaging so much has been developed in the line of protection from water and moisture-vapor resistance of various materials, laminated cellulosic products and coatings galore, for the war effort that it is of little wonder that many of our methods of packaging will follow those improvements that have shown their worth in the protection of merchandise.

Developments cited in T.A.P.P.I. Bulletin, April 18 "War the Mother of Necessity" that the V board container that would not disintegrate when wet was developed in the brief space of the early war period after the industry had sought for a method of treating paper over a period of thirty years to prevent it, the use of many new waterproof adhesives including urea formaldehyde and polyvinyl products, asphalts, starches, etc., the wax-dipped paperboard box replacing soldered tin plate for ordnance work, the protection of metal parts with paper and subsequently dipped in wax or sprayed with ethyl cellulose, the newer method of heat sealing, the development of many greaseproof and wet strength papers.

With the return of aluminum and other metals for foil production, there should evolve a wide range of



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packaging materials in which coated and bonded foil combinations covering a broad range of requirements also in the continued shortage and necessity for conservation of tin there is again emerging the inside-coated collapsible aluminum tube. Coincidentally there are under way broad plans for greater efficiency in air transportation of express shipments where speed of delivery is a factor and where high value and relatively light weight favor air express, such as could be conceived in the nature of numerous classes of pharmaceutical and medicinal products, such as, vitamins, hormones, tablets, capsules, ampoules, serums, etc.

With the consciousness that has grown with the requirements of the War Procurement Administration, where elimination of excess weight has been a definite objective such as we have seen in numerous instances, i.e., dehydrated and compressed foods, vanilla tablets, and many other tablets and capsules, has come the greater desire for elimination of unnecessary frills in medication to the benefit of all concerned.

And so has the corrugated carton become a container of preferred choice in airplane express on account of (a) lightness of weight, (b) ease of handling and storing, (c) general protection of contents. In this connection refer to Robert Gair Company's new booklet by Malcolmson on "Air Cargoes".

With the experience gained in the design of numerous substitute plastic and cellulosic materials to replace metal, there should be many survivors of this development when metal again becomes abundant, especially where the advantages and the economy are demonstrable.

When we consider the advantages in packaging to be derived from war experience, it seems logical to assume that many of the newer applications will demand entirely new equipment in some instances such as we see in electronics where dielectric heating method is now obtainable for producing moulded packages, also in the similar use in the setting of cements or the drying of glue.

Similarly dielectric heating has opened up new possibilities of a future, as seen in the dehydration of food and drug products, as well as to provide the means for sterilization of many such products in the finished package.

And similarly with the post-war thinking and planning has come the redesign for many manufacturing processes looking to simplification, greater efficiency of operation, and a higher degree of mechanization and productivity, as the vision of continued high taxes casts its shadow and impels competitive thinking in terms of production costs.

Many of us have realized that our shortages are not limited to crude materials, equipment, or packaging materials, but at the present time has the shortage of trained chemists and pharmacists been a subject of major concern, not only in the manufacturing plants but as well for the pharmacists particularly in the retail drug stores throughout the country.

And so has the problem of replacement of technical

workers in the production of medicinals and pharmaceutical products become an active project on part of the American Foundation for Pharmaceutical Education—a project supported largely by direct contribution from the drug trade.

Constructively as this plan was conceived to promote and develop pharmaceutical graduates in our colleges of pharmacy, it does not immediately relieve an acute situation nor promise relief in the shortage of trained chemists in laboratories for research and control operations.

There is no doubt that upon return of our soldiers from the fighting fronts there will be return of many chemists to their laboratories. There, however, appears an impending shortage due to curtailment of collegiate training and heavy loss of enrollment due to selective service orders.

With this in mind, it would seem logical to prepare for the day of post-war action in planning for the training of more chemists and chemical engineers to meet the emergency.

Just how this replacement can be effected remains a problem to be solved, if not otherwise by the law of supply and demand.

And so we have before us technical considerations for our early action and decision as the war gives way to peace, problems of substitute materials and reformulation, of newer therapeutic agents and their influences, of newer theories and discoveries in nutrition, and newer methods of packaging, transporting, and manufacturing. Out of them all should emerge many benefits.

Lipsticks

(Continued from page 651)

extremely hot weather or turning brittle and losing its unctuous property in cold weather. Its use, therefore, must be limited to small percentages.

There have been many arguments pro and con the use of lanolin in lipsticks. The claim has been made that because of its property of absorbing water it is likely to absorb the water it comes in contact with and form an emulsion giving an undesirable whitish cast to the lipstick color. On the other hand it has the property of being able to make normally incompatible substances form an homogeneous mixture. Its use in small percentages is therefore thought desirable by many manufacturers and is in common use.

In order to impart the necessary rigidity to the lipsticks there is a variety of waxes to choose from. Beeswax is very commonly used since it is readily compatible with other materials and has the added advantage of being more or less amorphous material which is not likely to crystallize from solution. Ozokerite may also be used for the same reason but here the amount is limited by the incompatibility of this substance with castor oil. Both these waxes serve as good materials to counteract any tendency produced by waxes such as carnauba or candellilla to cause the stick to become brittle and break too easily if too great a tensile force is applied

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on application. Carnauba wax which has the highest melting point of any of the natural waxes has many qualities which when used judiciously improve a lipstick. Small amounts go a long way in increasing the product's rigidity and it also raises the melting point of the stick even if very small amounts are added. It is usually impossible to determine what the melting point of a mixture of oils, fats and waxes is going to be. Furthermore, a small addition of a higher melting point wax does not necessarily raise the temperature of the mixture. It could be said of carnauba wax, however, that the addition of even as little as one per cent would raise the melting point two or three degrees Centigrade. Furthermore, such an addition would not have an appreciable effect on the "oiliness" of the lipstick. Too high a percentage of the wax produces a seemingly grainy effect on the surface of the stick, which to many people is undesirable. Most manufacturers prefer a smooth glossy surface as nearly mirror-like as possible. Candellilla wax which possesses many of the properties of carnauba may be used in conjunction with it to overcome the typical grainy external appearance produced by the carnauba alone.

The materials above are by no means a complete list of raw materials capable of use in lipstick manufacture. There are many others, such as glyceryl monostearate, cocoa butter, Japan wax, spermaceti and cetyl alcohol. In addition there are the different types of hydrocarbons such as mineral oil, petrolatum and paraffin waxes. All of these are used, but their use must be judicious. Castor oil is generally thought of as being incompatible with hydrocarbons. This, generally speaking is true. However, though not completely miscible with it, castor oil will dissolve in the neighborhood of 10 per cent of its weight of mineral oil, which will reduce its viscosity markedly if this is desired.

For colors in lipsticks there is a wide range of D & C pigments and lakes certified for this use by the Department of Agriculture. As for the "bromo acids" there are two generally used types. One is the tetra bromo fluorescein used to impart a reddish stain slightly on the bluish side; the other is the di bromo fluorescein which imparts an orange yellowish stain. The bromo acids are used in conjunction with each other, though the tetra bromo fluorescein may be used alone. It has been the writer's experience that the di bromo fluorescein acts as a modifier for the tetra bromo compound but is not very effective when used by itself. In lipstick manufacture there is the ever present bugaboo of rancidity to be considered. This may be partially avoided by not permitting any known pro-oxidants to be placed in the lipstick. Pigments such as iron oxides or any of the so-called "earth" colors should therefore not be used. It is sometimes a temptation to use one of the iron oxide browns to achieve a desired effect, but the use of any such compound would cause the stick to lose its consistency and to become badly odoriferous in a relatively short time. There have been some new materials put forth as good antioxidants recently and some of these may find a place in the lipstick. However, ran-

cidity in lipsticks is a problem peculiar to itself and these materials should be tested in this medium before adoption. The presence of bromo acids introduces some new problems insofar as lipsticks are concerned which are not encountered in other materials.

The methods used in lipstick manufacture have been written about too often, to bear repetition here. All seem to be effective and to give good results. There are methods used, however, which make for more effective handling. After the pigments have been ground with the base and remelted, an evacuation of the air incorporated by means of a vacuum arrangement will do much towards removing any holes after moulding and subsequent flaming.

Drugs, Doctors and Demagogues

(Continued from page 653)

some trivial injury or simple disturbance which, even without any attention will usually, speedily recover. Yet no medical man would entirely ignore these conditions, for treatment will insure increased safety and alleviation of discomfort. In consequence, while we start with the assumption of 100% skill, for some conditions, no conditions exist that do not require an underlying basis of skill, even if this be remotely obtained. For example, Pasteur showed the meaning of sepsis. Today we have available in all drug stores well designed and sterile dressings suitable for the simple treatment of common injuries. In this way, the laity can obtain a good treatment at an economic rate.

The question clearly arises whether any group has a right arbitrarily to attempt to create an artificial dam, preventing the proper and natural flow of skill and knowledge? Indeed, has anyone a moral right to deny to the public the fruits of any knowledge, let alone that which may enable it to remain healthy or live in greater comfort? But the action of certain medical societies, who debar all medical men except those actually writing prescriptions for individuals from membership, is an example of such a procedure. After a quarter of a century of teaching pharmacology, one can appreciate that these prescriptions do not reflect the highest skill available, for this ideal is not practicable to attain. Equally may these aloof members of the profession appreciate that most of the mixtures they order would not be capable of large-scale use, for they know little or nothing of the intricate technical problems involved in manufacturing and distribution, in which questions of aging and stability become of paramount importance. However, under social medicine, such mixtures are replaced by those more skillfully designed, as a study of approved medicines in countries where such a machine operates may show.

Happily, however, we begin to see signs that certain medical leaders at least are better oriented with the problem as it really exists. This is to satisfy all the therapeutic needs, or repair function, of the public to the fullest economic extent, which may only be obtained

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In this way, the public, for whom the whole function is developed, would be able to obtain properly labeled therapeutics, whether this be material or advice. Standards must be determined in both fields and properly maintained. By properly, one may say that they must also conform to new requirements and are not to be fixed by tradition or other out-dated factors. Knowledge advances, and with it must be the requirements for skilled men. To tamper with the present level, say of the M. D., is exactly akin to a sophistication of aspirin. To allow persons, less well trained than this standard, to practice medicine with equal rights, and no easily determined insignia, would be exactly akin to the sale of impure drugs bearing a U. S. P. label.

Nevertheless, for those with the M. D., which indicates a certain minimum requirement, to decry altogether the value of others having less skill, provided this be properly recognizable by the public, is fantastic, for the profession itself trains and uses most successfully enormous numbers of such individuals as nurses, technicians, special personnel, and in some states, even anesthetists and professors, or deans of medical schools.

Apart from a right and proper insistence on correct labeling, it should be recognized that all grades of skill can be usefully employed in this huge problem. Nevertheless, it is my personal belief that direct contact with medical science must never be entirely lost. On the contrary, every effort should be made to develop and maintain, made especially necessary by rapidly changing knowledge, the optimum available amount of medical skill in all parts, right from the protective cosmetic end to the highest skill, and back again. In the past few years, a material migration of well trained medical scientists has been taking place, but there still lack sufficient numbers.

Even without the addition of the many supporting details it becomes clear that the major barrier which exists for the efficient repair and maintenance of human beings in this great country is both removable and now superfluous. On the one hand, we have a medical profession both scientifically and clinically trained to a pitch of unsurpassed excellence. On the other, we have a series of appropriately designed industrial concerns capable of the economic manufacture of all desirable medicinal supplies. We have, however, a dam lying athwart the medical stream, so that while the serious conditions and diseases are excellently managed, the great majority of the trivial and minor complaints and injuries, in spite of enormous practical facilities which are available in the form of well made, cheap, and properly labeled remedies, are yet not subject to the best skilled control which the medical profession could muster, if this arbitrary barrier were removed. Failure to recognize this fact has enabled those who control all our functions by permanent, political domination to dare a rapid advance along the road of dictatorial control, so inaccurately labeled "Social Medicine." Nevertheless, the quantitative appeal which may be used by

these individuals, unless it is taken away from them by a coordinated action of science and industry, is so great as to constitute a major menace. Should the Wagner and the even more blatant Kilgore proposal pass into law, all medical matters in this country would become dominated by political consideration, for this is the soil from which these ideas grow.

While the medical profession would immediately suffer ignominious reduction to a political technocracy, for a little while the domestic remedy industry would probably profit, for the choice between the payment for a decent remedy and a long wearisome wait in a government bureau with accompanying interludes of answering questions and filling in forms would be easily solved. Later on, however, as the system became deeply embedded, this outside competition would gradually become troublesome, especially politically. In consequence, we should be faced with a continuously increasing pressure which would finally end by cutting off all medical supplies, except those manufactured by the government itself, or, under government contract, such as those now obtained for the Armed Services. This, of course, can be most easily managed merely by forbidding the further use of any but official names for recognized medicines, a suggestion which would be supported entirely by the government medical technicians; namely, an overwhelming preponderance of so-called medical opinion.

That these personal dangers are not obvious to all thinking people occupied in the fields of medicine and drugs seems unlikely, yet we have seen so many modern examples of the philosophy of Esau who sold his birthright, which to an American is individual freedom, for the transient pleasure of having his belly filled that, in spite of a few gleams of hope, the future appears clouded by the black clouds of political storms from which the devastating bolt of dictatorship may thunder us all to our ruin.

Baldness

(Continued from page 657)

for the mouse was inositol, a fact subsequently confirmed by other investigators.[32] However, other studies[33, 34] brought out a relationship between inositol and the anti-gray hair members of the B complex. Wooley,[35] for example, noted that when mice received diets adequate in inositol, but deficient in pantothenic acid, achromatrichia and alopecia began to develop; resulting in complete hair-nakedness in some instances. Addition of pantothenic acid to the diet resulted in a slow return to normal. Reversing the dietary conditions resulted in alopecia, but addition of inositol resulted in growth of hair.

More recently, Nielson and Black[36] noted that rats given a diet containing 1 per cent of succinyl sulfathiazole developed a symmetrical alopecia after a few weeks. Inositol supplementation prevented this baldness and also stimulated growth.

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While these experiments are of definite interest, there is very little evidence as yet that inositol is essential to the human nutrition.[20, 37] What little work that has been done with humans has proven disappointing. One group of workers[38] found that inositol in one to two gram doses over a period of time did not benefit alopecia. However, the use of vitamins in alopecia is still in its experimental stages; the future may bring important developments.

That a relationship between hormones, vitamins and hair growth does exist is apparent in Schwemmler's[39] studies. He noted that vitamin A stopped loss of hair in patients with hyperthyroidism and served to increase hair growth. It was his opinion that vitamin A in thyrotoxicosis inhibits the falling out of hair by fixing the hair to the follicle and favorably influencing cornification of the follicle.

A variety of skin diseases may at times be responsible for bald spots.[7] The various types of ringworm of the scalp, for example, produce patches of baldness which gradually extend as the infection spreads.[4] Seborrhea and seborrheic dermatitis due to overactivity of the sebaceous glands are among the more important chronic inflammatory scalp disorders causing hair atrophy and hair loss.[10] Usually the process is quite gradual. First a noninflammatory branny scaling of the scalp, e.g. dandruff, makes its appearance. After some years, in most cases, a serous exudate develops on the scalp, giving the scales an oil-like character. Then, with the onset of puberty, there is excessive function of the sebaceous glands (seborrhea oleosa) which interferes with hair growth and replacement, leading finally to alopecia.[1]

Certain chemicals and drugs are also capable of causing loss of hair. Preparations containing arsenic and thallium are especially guilty in this respect. Occasionally, a report of baldness following the use of a new drug appears in the literature, but these are rare.[40]

Mechanical factors such as pressure, friction and traction are coming in for greater consideration as causes of baldness. Hats have long been accused of contributing to loss of hair; presumably by compression of the blood vessels of the scalp which nourish the hair follicles and by excluding sunlight and air.[1] Recently, Ephraim[41] presented a new theory for the cause of premature baldness based on the view that alopecia results from spasms of the head musculature exerting traction atrophy of the scalp. Others have found that the habit of pulling the hair back to overcome kinking or to make a tight "bun" may cause a traumatic marginal alopecia.[42]

Although there is no "sure cure" for baldness other than a well-fitting wig, many cases of alopecia respond very favorably to proper treatment. The prognosis for regrowth of hair is generally good in instances of alopecia areata and suitable care often serves to arrest hair loss in premature baldness. Elimination of any systemic disorders or foci of infection are obviously of prime importance before any system of treatment can be undertaken.

Scalp hygiene looms very large in any procedure for treating or preventing hair loss. Like all good things, shampooing can be overdone. As a rule a shampoo every ten days or two weeks is satisfactory,[2] but where the hair is very oily it may be washed as often as twice weekly, taking care to rinse out all of the soap.[10] Goodman[43] feels that the hair and scalp should be washed at intervals determined by individual necessity rather than by rule. A good grade of plain soap is generally satisfactory, but some dermatologists suggest the use of tincture of green soap. In cases of alopecia areata, Haynes[4] recommends the use of tincture of green soap containing 10 per cent of resorcin as a shampoo. After the hair has been thoroughly rinsed and partly dried, he suggests that the following stimulating lotion be well rubbed into the scalp with the finger tips:

Liquor carbonis detergens	**24.0 parts**
Castor oil	**6.0 parts**
Oil of cloves	**6.0 parts**
Methyl salicylate	**6.0 parts**
Alcohol	**240.0 parts**

Since dandruff is considered an important factor in the early stages of premature baldness, the presence of this form of seborrhea requires special consideration. One recommended[2] procedure calls for the removal of existing crusts or scales by means of a tincture of green soap shampoo, to be followed by several applications of an ointment such as the following:

Precipitated sulfur	**2.0 Gm.**
White petrolatum, to make	**30.0 Gm.**

After the scalp is free from scales, an appropriate stimulating lotion may be employed, such as one consisting of:

Chloral hydrate	**24.0 Gm.**
Compound spirit of myrcia	**240.0 cc.**

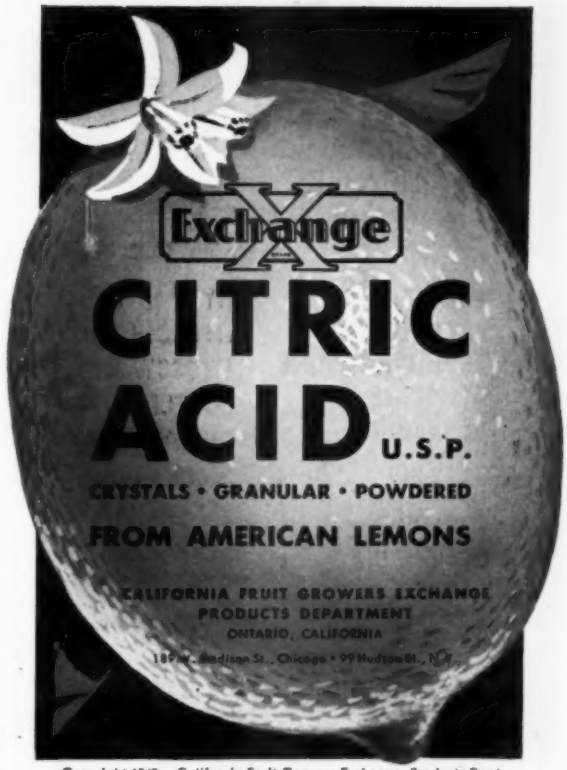
Tobias[44] suggests two formulas for use in seborrheic alopecia to meet varying conditions. Thus, for oily seborrhea he recommends the following lotion:

Resorcin monoacetate	**4.0-8.0 parts**
Mercury bichloride	**0.2 part**
Salicylic acid	**4.0-8.0 parts**
Glycerine	**8.0 parts**
Alcohol (90%), to make	**240.0 parts**

When dry seborrhea is present, he advocates the following:

Resorcin monostearate	**4.0-8.0 parts**
Mercury bichloride	**0.2 parts**
Salicylic acid	**4.0-8.0 parts**
Castor oil	**8.0 parts**
Alcohol (70%), to make	**240.0 parts**

Stimulation of the scalp is an integral part of treatment for baldness and such measures as massage, stimulating lotions and the use of special rays all find frequent employment. Finger tip massage of the scalp is a favorite means of increasing blood circulation. Mechanical vibrators are a useful adjunct. Brushing the hair regularly is also a time-honored method for securing the desired beneficial results. Vacuum pres-



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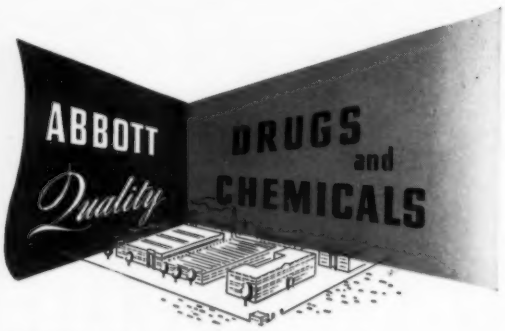

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sure machines,[45] so popular about eight years ago, were widely exploited but one hears little about them today.

Lotions and ointments for treating baldness are among the oldest of medical preparations. Indeed, a prescription for such an ointment appears in the Ebers papyrus, unearthed in Egypt,[20] and calls for a mixture of the fats of lion, hippopotamus, crocodile and serpent.[1] Other mixtures, some of them quite horrible messes, are found in ancient pharmacopoeias and in folk-lore remedies. Today hair and scalp lotions are compounded on a rational pharmacological and physiological basis, but a good deal of empiricism still persists in many modern formulas.

The number of preparations that have been proposed for the prevention and treatment of baldness is legion, but more are being suggested. Many formulas are available in the literature; Goodman's[43] text being an especially valuable source for a variety of useful compositions.

An irritant is the chief ingredient of most hair preparations of this type, its presence serving to increase blood flow and so stimulate the scalp and heighten hair follicle nutrition. Many types of agents have been suggested varying in strength and severity of action all the way from a mild sulfur ointment to the blistering effects cantharides or phenol.[4] Obviously, preparations containing high proportions of these latter drugs belong only in the realm of the physician.

Use of Sulfur

Sulfur finds quite frequent use. Simple preparations with this ingredient are easily prepared by adding from 5 to 20 per cent of precipitated sulfur to rose water ointment (e.g. cold cream).[46] This agent, used in conjunction with salicylic acid and oil of cade, may also be dispersed in a more modern absorption base, as recommended by one dermatologist.[7]

Resorcin or resorcinol has long been a favorite component of lotions for treating both alopecia areata and premature baldness. Since it has the disadvantage of staining light-colored hair, it has largely been replaced by resorcinol monoacetate (euresol), which gives off resorcinol slowly and does not show such staining proclivities. A typical local stimulating lotion for daily use on the scalp, as given by Calloway,[7] consists of:

Resorcinol monoacetate	**12.0 parts**
Tincture of capsicum	**7.2 parts**
Liquor carbonis detergens	**12.0 parts**
Alcohol, to make	**240.0 parts**

Although Goodman[20] believes pilocarpine to be ineffective, this drug has enjoyed a favorable reputation among dermatologists as a stimulant of hair growth because among its other effects (some of them quite undesirable) it stimulates the sweat and sebaceous glands.[5] A favorite prescription of dermatologists for many years is a preparation containing 1 per cent or less of pilocarpine in 50 per cent alcohol or bay rum.[46] Another lotion containing this drug, one to be used morning and evening, consists of:[2]

Pilocarpine hydrochloride	**1.3 Gm.**
Perfumed spirit (N.F.)	**16.0 cc.**
Alcohol	**125.0 cc.**
Rosewater, to make	**250.0 cc.**

Quinine still maintains an empiric reputation as a useful ingredient of hair "tonics." Although this valuable drug may not be used for such purposes at present, a typical quinine-containing lotion may be of interest:[43]

Quinine hydrochloride	**0.6 part**
Tincture of cantharides	**1.2 parts**
Peru balsam	**2.0 parts**
Water	**12.0 parts**
Alcohol, to make	**100.0 parts**

Ultra-violet light rays, in doses just sufficient to produce erythema, has found general acceptance in the treatment of alopecia.[3, 4, 7, 12] Not dangerous when properly used, such therapy is quite popular and frequently helpful. X-rays have been used, but are not looked upon with great favor.[4] Grenz rays, or very soft X-rays, have yielded good results in the hands of experts.[47]

It is quite evident that there is still a great deal to be learned concerning the causes and treatment of baldness. Nonetheless, proper treatment is often effective. As one editorial[46] comment put it, "The chief ingredient of all prescriptions for the control of alopecia is persistence."

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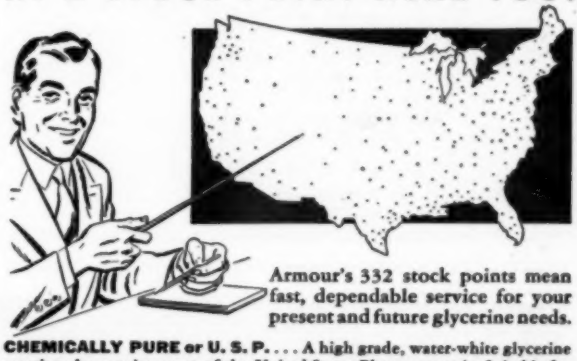

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Antiperspirants

(*Continued from page 655*)

perspirants is very simple. A 13 per cent solution of aluminum chloride in distilled water represents a perfectly satisfactory product. A concentration of 15 per cent is considered the maximum. The addition of urea is recommended as a buffer, making the action of the solution milder and thus reducing the chances of irritation.

Formula for Liquid Antiperspirant

Aluminum Chloride	130
Urea	30
Distilled Water	840
	1000

Procedure: Dissolve aluminum chloride and urea in the water and filter. The use of a filter press is recommended, but filtration through paper with the aid of diatomateous earth (kieselgur) will do. The solution should not come in contact with metal, especially not with iron.

In order to make the use of liquid antiperspirants convenient most brands feature an applicator attached to the bottle cap. It is obvious that the material used for the applicator must be compatible with the product.

A more elegant and efficient method of application is spraying on of the solution. The difficulty here is to construct a practical atomizer which will not corrode nor leak, can be manufactured and assembled at a reasonable cost and, last but not least, can be made without violating various existing patents covering atomizers. This is a big assignment, but possibly a clever gadgeteer will come through with a good design after the war. One antiperspirant was sold in an atomizer bottle previous to the days when all non-medical atomizers disappeared for the duration. But, as far as we know, this model had not overcome all technical difficulties yet.

Two avenues of approach are open again for the preparation of antiperspirant creams: Vanishing cream or absorption base type. The first is the more popular of the two.

Formula for Antiperspirant Cream (Vanishing Cream Type)

a.	Acid-stable Glyceryl-Monostearate	170
b.	Spermaceti	90
c.	Glycerine	39
d.	Distilled Water	380
e.	Preservative	1
f.	Aluminum Sulfate	150
g.	Distilled Water	150
h.	Titanium Dioxide	20
		1000

Procedure: Dissolve (f) in (g), then stir (h) into the solution.

Heat (c) + (d) + (e) in the mixing kettle to 90°C.

Heat (a) + (b) also to 90°C. and introduce into the water phase with fairly vigorous agitation. Stir until the emulsion is well formed and almost cool, then add gradually the mixture of (f) + (g) + (h).

Titanium dioxide serves merely as a filler to give the cream more body and a whiter appearance. Talc can take its place, but is not as good.

General Type Formula for Antiperspirant Cream (Absorption Base Type)

a.	Absorption Base	240
b.	Aluminum Sulfate	150
c.	Distilled Water	600
d.	Titanium Dioxide	10
		1000

Procedure: Dissolve (b) in (c), add (d). Add this mixture gradually to (a) while stirring, with both phases at 50°C. Stir until 25°C. is reached, pass through an ointment mill.

This type of cream can be adjusted for consistency by addition of waxes like spermaceti or ozokerite. The great advantage of an absorption base cream is that it will not dry out and harden. But its formulation and handling have to be carefully worked out to give a product which holds up satisfactorily.

The function of antiperspirant cream is such that perfuming is not required. Some hold that it is precluded. If you think, however, that your product has more appeal if perfumed the only thing to watch out for is that the perfume must be acid-resistant so that it will not deteriorate in the cream.

Postwar Export Markets

(*Continued from page 693*)

petitive interest that would be furthered by keeping these trade-marks from falling into German hands.

Many manufacturers look upon the development of export markets as a real necessity if they are going to be able to enjoy prosperity when the war is at an end and the present high volume of business resulting from the war ceases. It has been pointed out on every hand that competition in this industry at least will be exceedingly keen when the war stops. Furthermore, while a certain degree of post-war boom is anticipated due to the desire of people to replace and obtain things that have not been manufactured during the war, once these needs are filled, there will be a settling of business to a relatively low point. Also, there is no new great industry in sight to be developed with the possible exception of television. This country has on numerous occasions been pulled out of depressions by the development of a young or new industry. However, it does not seem that television could do much to prevent a post-war depression.

Men engaged in developing export markets feel that the future of these developments depends to a very great extent on the attitude of our government. They do not want the government to interfere in these developments, and they feel that the businessmen should be left free to work out the problems that arise. They are not averse to getting help from the government in the same manner as the British get help in foreign trade from their government, but such aid has not been forthcoming from the present administration.

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